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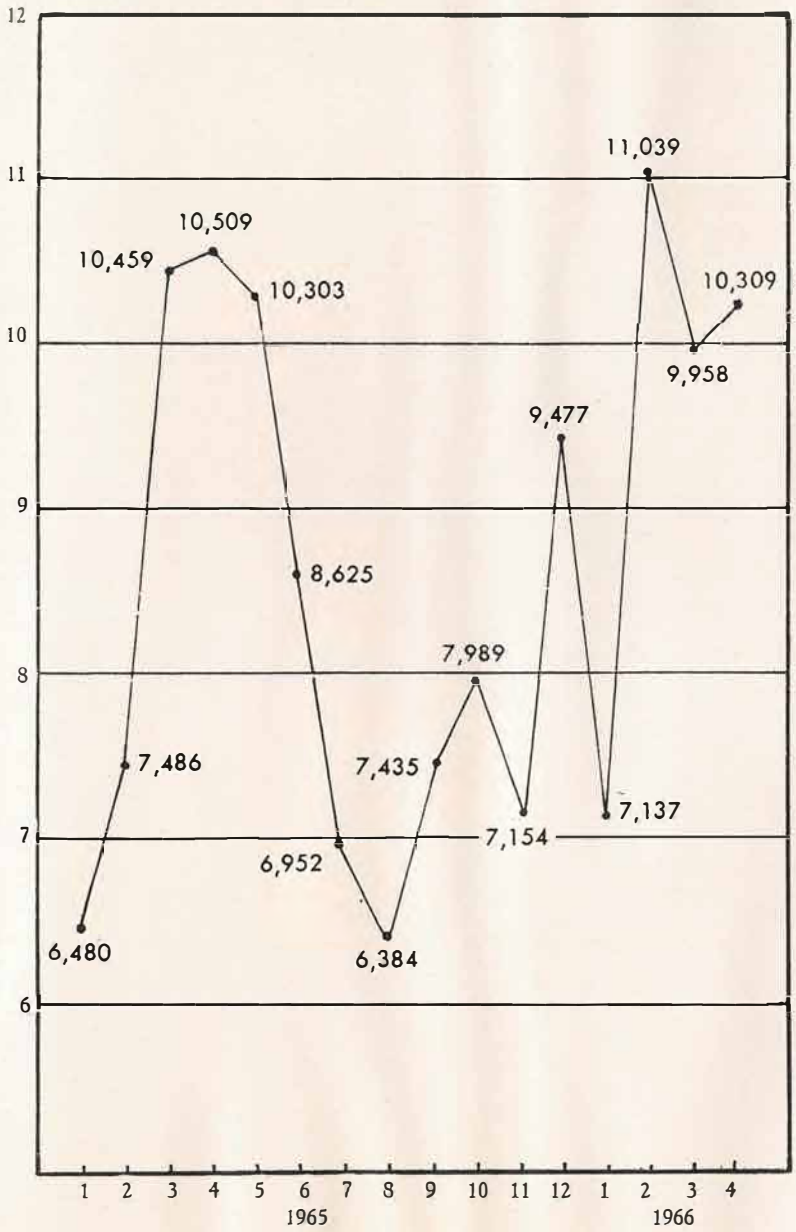
REPUBLIC OF CHINA
1965 - 1966

May, 1966

Taiwan

Loop Acceptors by Months

January 1965 - April 1966



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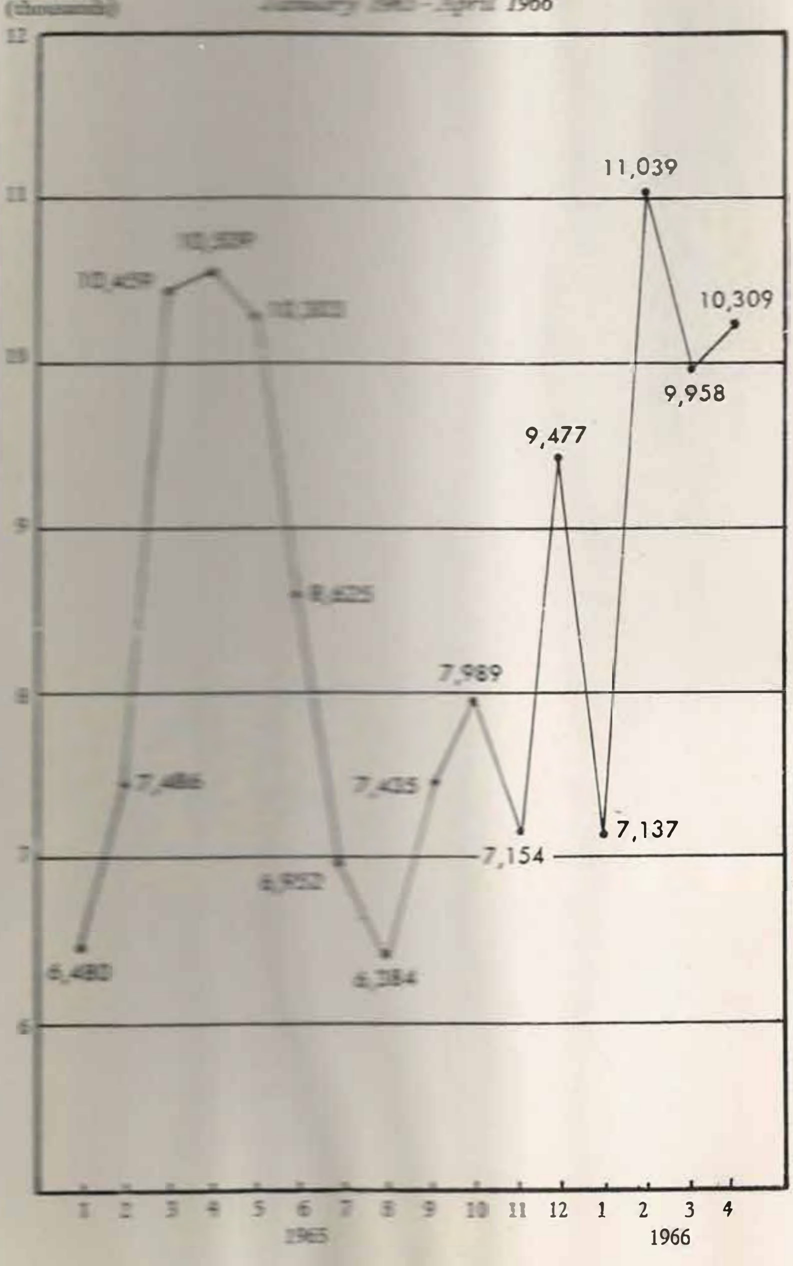

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CONTENTS

FOREWORD

The Taichung Study during 1963-64 provided guidelines for developing the Taiwan family planning program and the results were used to obtain a more favorable government policy. During the last two years, the government has given unofficial support for the family planning program. The program achievements during 1964 and 1965 have been due largely to the dedication, imagination and energy of the administrative staff. In addition, Taiwan has had favorable conditions for a family planning program because of rapid industrialization, a strong felt need for contraceptives by married couples, no religious restrictions on family planning methods, good transportation and communication facilities, many doctors, and a high literacy level due to a six-year compulsory education program. Under less favorable conditions, Korea has conducted an extensive program and rapid developments are now occurring in India, Pakistan, Thailand, Turkey, Tunisia and the Philippines.

The objective of this report is to describe the family planning program during 1965 and early 1966 with emphasis on phases of the program which may be adaptable to other areas. The views expressed are not necessarily those of the Taiwan Provincial Health Department, the Taiwan Population Studies Center, nor the Population Council.

This 1965-66 report was written by Mr. Robert Gillespie full-time staff representative of the Population Council with Mr. George Cernada, a Population Council Technical

Assistance Fellow, who also edited it. A large part of the report is based on findings of the Population Studies Center under the actual supervision of Dr. L. P. Chow. Dr Chow has reviewed the content of the manuscript.

Dr. S. C. Hsu, Chief of the Rural Health Division of the Joint Commission on Rural Reconstruction, Dr. T. C. Hsu, the Commissioner of Health, and Mr. S. M. Keeny, Resident Representative for East Asiaof the Population Council have been responsible for the policies.

Misses Laura Lu and Tessie Huang have provided invaluable health education advice and supervision of field work. Dr. C. H. Lee has been responsible for many of the medical aspects of the program.

Many ideas and recommendations for continued improvement were expressed by individuals with interest in the Taiwan program, including Dr. Bernard Berelson, Vice President of the Population Council, Dr. Ronald Freedman, Director of the Population Studies Center at the University of Michigan, the staff of the Population Council, and Dr. and Mrs. Tietze of the National Maternal and Child Health Association, as well as others.

Without the helpful assistance of these people, the report would not be possible but they are in no way responsible for errors in content.

If additional copies are desired, they can be obtained by writing:

Dr. L. P. Chow, Associate Director
Taiwan Population Studies Center

P. O. Box 112

Taichung, Taiwan, China.

We would appreciate knowing if the report has been beneficial to you, and in what way, as well as happy to provide further information on phases of the Taiwan program which may have relevance to planned or ongoing programs of other countries.

TAICHUNG **MARCH 1966**

SUMMARY

During 1965, the second year of the Taiwan family planning program, 99,253 loops were inserted, for a total of 149,503 loops, or one loop in every 10 married women 20 to 44.

A. The principal reasons for the large number of acceptances are:

1. About a fourth of all married women in the childbearing ages of 20 to 44 have the number of children desired and want to stop childbirth.

2. Many of these women have heard about an inexpensive, reliable, easy to use, and safe contraceptive from over 280 family planning workers, health station personnel, private doctors, and word of mouth communication.

3. In order to provide access to the Lippes loop, over 575 private doctors have been trained to insert the loop at US$1.50 for each insertion, of which one half (US$0.75) is paid by the patient.

B. The objectives of the program have been threefold:

1. To liberalize government policy by illustrating the problems of rapid population growth and the benefits of a family planning program.

2. To provide the opportunity for as many couples as possible to have children only when they are wanted.

3. To integrate the idea of family limitation and small family norms into the existing attitudes, values and goals of the people.

C. Funds have been made available:

1. The money has come from interest on A.I.D. loans. Combined with the Population Council grant, there was about US$450,000 spent during 1965 or 3.5 cents per capita.

2. The total cost to insert a loop was about US$4.50. However, 40% of cost went to work directly producing few loops. The adjusted cost per case would be US$2.70 (with case paying US$0.75).

3. The field workers referred 54.1 % of the cases. The cost per case directly referred was US$1.30.

4. It costs US$16.00 to train a doctor, US$8.00 to keep him supplied with 500 loops and 25 inserters and US$ 4.25 per doctor to keep the supply line in order.

5. The Council funds were used to maintain top administrators, to train workers and doctors, to build supervision, to finance demonstration projects to improve the program, and to conduct IUCD follow-up studies and fertility surveys.

D. The program reached operational and achievement targets:

In 1965 the loop acceptance target was 100,000 so the program reached 99.2% of the target. The operational targets such as doctors trained and workers hired were also met. The nature of the expansion of the program may be seen from the increasing numbers of physicians and fieldworkers involved in the program. The number of fieldworkers increased from 136 in December of 1964 to 265 in June, 1965 to 282 in December of 1965. The number of physicians trained in loop insertion went from 369 in December of 1964 to 470 in June of 1965 to 563 as of December of 1965. These latter figures include nearly 100 general practitioners added to the OBG's previously trained. In addition, the workers referred an average of 18.4 cases per worker. The workers' operational objectives in terms of home visits and group meetings were also achieved.

E. Doctor training procedures and medical policies:

1. The private doctors continued to be invited by county health directors to attend loop insertion clinics. Workers referred women to the clinic so that each doctor could practice inserting loops. Training lasted one day for gynecologists and 3 days for general practitioners.
2. The basic medical policies remained: the loop can be inserted any time during the cycle; the doctors are qualified for loop insertion training if they can determine with a sound, the direction of the uterus, diagnose con-

traindications, use proper sterile techniques and treat side effects; the doctors attempt to treat the women with the loop in place; larger loops are emphasized and, at present, more emphasis is being given to treating side effects in order to increase continuous usage.

F. The field staff:

1. The best workers are at least 25 years old, usually married, with some midwife training, mature, and willing to work hard.
2. The training lasts 2 weeks but it is not as important as inservice training which is used by the administrative staff for solving problems which come up in the field.
3. Besides visiting women with many children, mothers with a recent birth, conducting group meetings, and getting volunteers to hand out fliers, the workers also follow-up non-respondents who intended to get a loop and loop acceptors.
4. Although there is a supervisor for every 15 workers, the supervision of family planning workers has been a weak point of the program.

G. Family planning worker referrals highest:

Besides full-time field workers who are credited with 47.6% of referrals from the coupon returns, the doctors were credited with 20.6%; the health station personnel, 10.2%;

the village health education nurses, 6.5%; the Family Planning Association, 3%; the military hospitals, 2%. In addition, people heard about the loop from newspaper articles, radio announcements, fliers and oral communication. From the national fertility survey it appears that about half of all referrals come as a result of hearing about the loop from friends, neighbors, and relatives.

H. Evaluation continues:

The evaluation has been based on returned coupons, IUCD follow-up studies, and an island-wide fertility survey. The final results of the fertility survey will be available in mid-1966.

I. The demonstration projects have revealed the following points:

1. When a team of fieldworkers concentrates its effort on a limited population, for a short time and concurrently, word-of-mouth communication is generated to obtain social support for the program, and a large group of eligible couples will make a decision to respond, if they feel they are receiving a special offer.

2. Paying many people in daily contact with a commumity on a fixed cost basis per referral is less expensive than using fieldworkers. However, 1965's studies have yet to show substantial results from this method. This approach continues to be explored.

3. If a woman intends to go to the doctor, she is aided in making a decision to respond if she is given a specific time and place.

4. By finding out why women who intend to go to the doctors for a loop don't go, both the administrative and the educational approaches of the program have been improved.

5. Distributing the oral pills through the mails has been an effective supply channel.

6. Satisfied loop wearers can be effectively used to give favorable testimony at group meetings, hand out fliers, and help ambivalent women make a decision by giving favorable testimony.

J. During 1964, Mr. S. M. Keeny, East Asia Representative of the Population Council, summarized the most important points learned in the following manner:

1. a. The rapid expansion of the program in Taiwan proves pretty conclusively that the desire for large families is rapidly fading. Nearly 90 per cent of couples interviewed say they favor family planning. They say that they want less than 4 children but have more than 5.

b. The typical couples do not know what to do and are eager to learn.

c. There are, however, many steps between saying one is in favor of family planning and doing something

effective about it.

d. The main problems are how to get the money and how to get the work organized.

e. A national policy helps greatly to get the money and to get things done; but comparable results can be had without one if money and imaginative leadership are available.

f. The method used must be convenient, effective, long-lasting, very cheap, and preferably without recurrent costs. The one most acceptable now is the Lippes loop.

g. Essential for success are a large number of satisfied users. It is therefore best to concentrate first on families with three or four children and at least one son. In the second stage of the program, however, this group will be largely exhausted, so that the emphasis must increasingly be on spacing children rather than stopping having them.

h. As the program gets accredited, the fieldworkers can save time by having more group meetings and fewer home visits.

i. Discussions with the family should not be in terms of the dangers of over-population but in those of the family's own welfare. References to the Confucian ideals of happiness, long life, and prosperity get home; talk about national economic problems from overpopulation does not.

j. The program must constantly be reevaluated and the findings applied promptly, in order to get more results with the money available, which is always too little.

2. At the end of 1965, Mr. Keeny summarized other lessons learned:

a. The key to steady progress involves precise planning for at least a year ahead.

b. Supervision should take place mostly in the field and not from behind a desk. It requires special training. Merely to appoint a good worker as supervisor may mean losing a good worker and gaining nothing.

c. In-service training is essential as new effective methods are worked out and as the shape of the problem itself changes.

d. Doctors and field workers must tell the whole truth about loops, especially about the increased menstrual bleeding for a month or two caused by them.

e. Success in getting loops in depends largely on how near the doctor is to the woman and how quickly she can get the loop inserted and get back to work. The mother wanting a loop must be given VIP service.

f. A rapidly growing loop program must be backed up by good radio and newspaper support.

g. Every occasion should be seized to get satisfied users to tell others. (They need coaxing, which is certainly not true of the dissatisfied ones.)

h. The combination of group meetings and home visits needs more study. Sometimes many short calls at home (with a flier left behind) are more productive than a few long ones.

i. Fieldworkers should spend at least 80 per cent of their time visiting groups or families. They should be in the health center or station only if they can see more women there. Their reports should be kept simple and short.

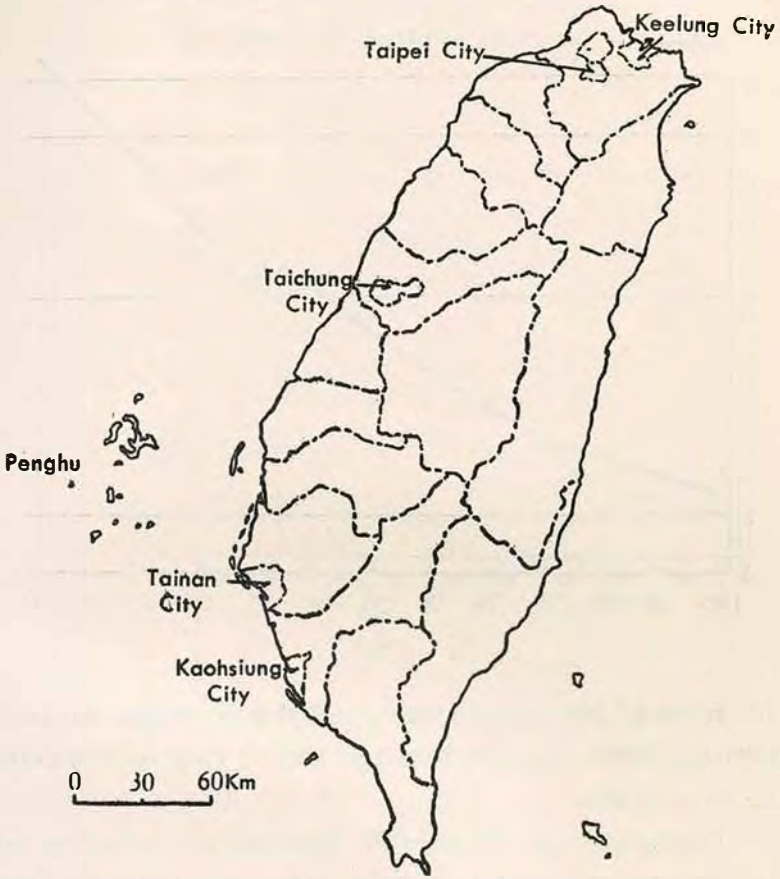
j. "Full-time" family planning workers should not be diverted from their work except in real emergencies.

k. The supply line must be constantly checked, so that workers always have everything they need.

1966

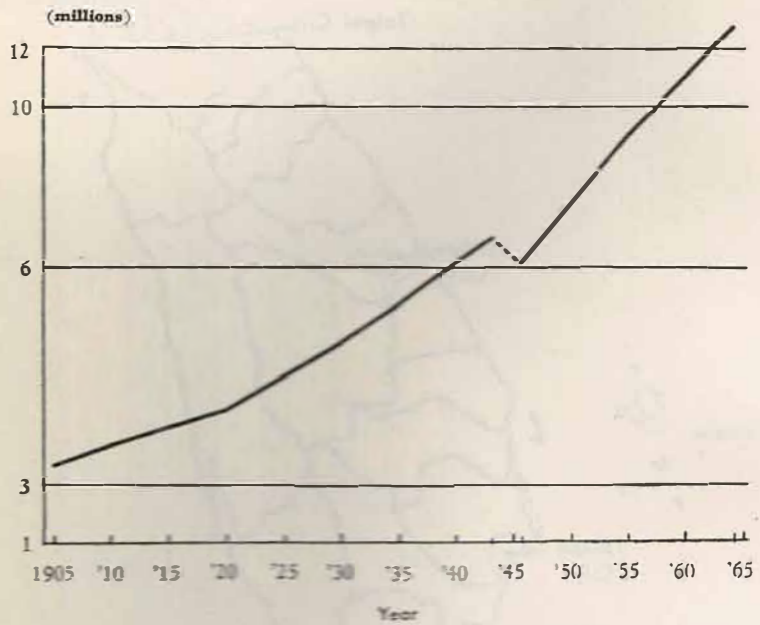
During 1966 there will be much emphasis on increasing continuous usage of the IUCD. Fieldworker training, more physician education, providing medications for patient follow-up and general public health education are being emphasized. Other methods such as the oral pill and sterilization will be offered on a limited scale to discontinued users. In addition, a post-partum mailing campaign starting in March should bring information on the loop to all women in Taiwan having a recent birth. Mass media is also being used for the first time, although on a limited scale. Probably the effects of strengthened supervision will also be felt. Hopefully, the reinsertion rate of 5 percent will increase.

1. The Province of Taiwan Republic of China



Taiwan has a total area of 14,047 square miles, with a density of 873 persons per square mile. It is administratively divided into 22 counties/cities, subdivided into 361 townships.

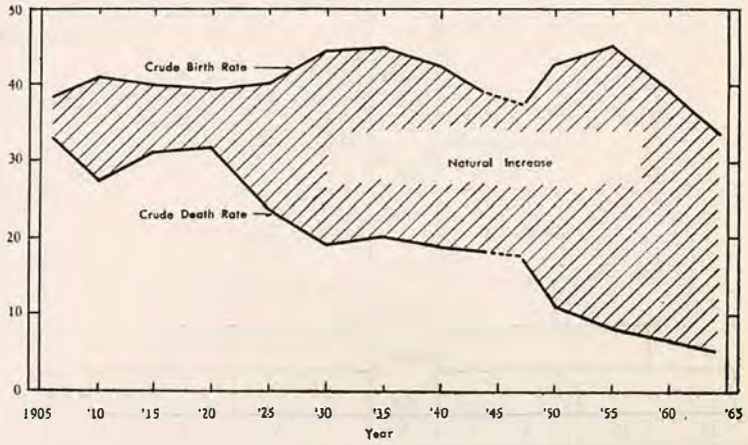
2. Population Growth



It took 36 years for the population to double between 1905 and 1941. Between 1946 and 1964 it took only 18 years for it to double.

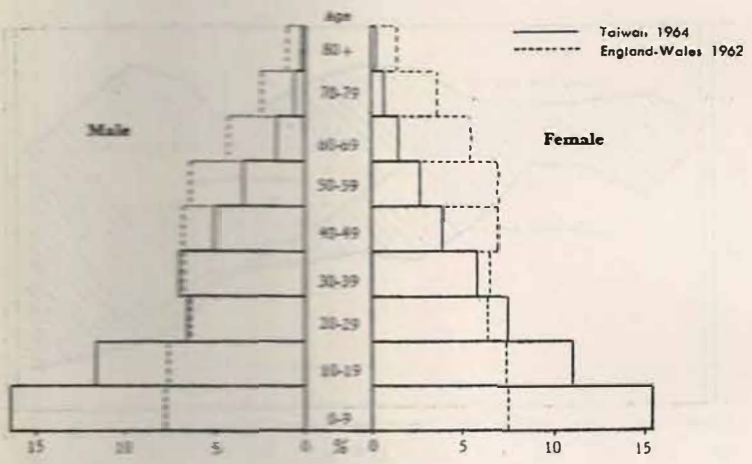
During the past 18 years the population increased at an average annual rate of 4 per cent. The present rate is about 3 per cent. It is estimated that the population will double at its present rate of growth in 24 years.

3. Rate of Natural Increase



Although about a million persons came from the Mainland, the main cause of the population increase has been the rapid decline in the death rate. The annual rate of natural increase has risen from about 2 per cent in 1947 to about 3 per cent recently.

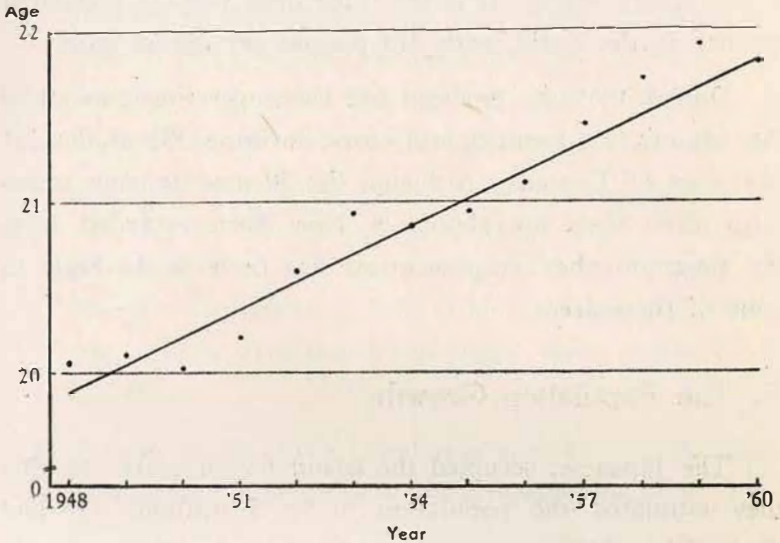
4. Age Composition



Taiwan's population is young. In 1964, 32 per cent were less than 10, 45 per cent were less than 15, and 54 per cent were less than 20 years of age. The proportion in the productive age, 20-64, was only 43 per cent.

5. Age at First Marriage of Girls

(1964 Fertility Survey)



Girls marry relatively late in Taiwan, and the age rose steadily from 1948 to 1960 at the rate of about 2 months for each year. One reason has been better opportunities for more education.

I. SETTING

A. Location of Taiwan and the Program:

Taiwan, a province of the Republic of China, is a small and mountainous island about 100 miles off the coast of Mainland China. About 12.5 million people live within its 14,047 square miles. It is the third most densely populated country in the world, with 873 persons per square mile.

During 1965 the program has been operational in all of the island's 22 counties and cities, covering 331 of the 361 townships of Taiwan. Although the 30 mountainous townships where there are aborigines have been excluded from the program, the acceptance rate has been fairly high in some of these areas.

B. The Population Growth:

The Japanese, occupied the island for 50 years. In 1905 they estimated the population to be 3 million. It had doubled by 1940 to 6 million and it has doubled again in the last 18 years. The increase of 4% per year since 1947 has been due in part to immigration; but primarily it is due to the reduction in the death rates without a corresponding reduction in the birth rates.

Even with an intensive family planning program to accelerate the present slow decline in the birth rate, the population will probably double again before the turn of the century.

C. The Population Problem:

The population problem applies directly and indirectly to many aspects of Taiwan.

1. Economics and Finance:

a. Although the gross national product increased 6.4 % in 1964 the population increase probably decreased the benefits to the consumer by half. Slowing population growth means fewer consumers dividing the total production of Taiwan's industry and thus an increase in commodities to the consumer. Industrialization depends on technology, skilled organization, and abundant capital. The first two especially depend on improved education. There are not enough schools to educate the nation's youth, although Taiwan is building schools at a faster rate than most other Asian Countries.

b. Taiwan has a young population with 45% in the consuming but unproductive age category below 15. The 600,000 young people between 12 and 18 present a serious unemployment, and underemployment problem. With fewer dependents, Taiwan's productive population could increase investment and gradually increase production.

2. Social and Cultural:

a. Findings from the Taichung Study in 1962 indicated that about one of every five pregnancies was unwanted. Women on Taiwan sometimes resort to illegal and of-

ten harmful abortions. The survey which was conducted in Taichung showed that married women 20 to 39 wanted fewer children, approved of family planning, and were trying ineffectively to limit the size of their families. Eighty-eight per cent of the wives and 90 per cent of the husbands surveyed approved of the idea of doing something to space their children or limit family size. For the most part, they wanted to know more about family planning methods. They realized that they no longer needed to have 5 to 7 children in order to have 3 or 4 survive.

b. There seems to be little religious restriction on the use of contraception in Taiwan.

3. Health:

a. Unfortunately, abortions, sometimes unskillfully induced, are used as a family limitation method.

b. Too frequent and close births can add to physical complications relating to difficult childbirths.

c. Women who do not space their children at least two years apart usuall do not give their bodies enough time to prepare for another pregnancy.

4. Education:

a. Taiwan has a shortage of middle schools to take care of children between the ages of 12 to 18. There is also a severe shortage of vocational schools for training technicians needed for industrial development.

b. Because of the rapid increase in children reaching

school age there is sometimes a decrease in the quality of education because the number of students per teacher increases.

5. Agriculture:

a. Although one-half of the population is still employed in agricultural production and the major source of foreign exchange is agricultural commodities, Taiwan is fairly rapidly becoming an industralized country. So far, technical and financial assistance has increased food production at a rate faster than population growth and since 1952 the per caput increase in food production has been 5%. Now the total land which can be brought under cultivation and the yield per acre are reaching a peak. In 1964 the rice yield stood at 3,294 kilos a hectare, which is the second highest yield per hectare in Asia.

b. For the youth who migrate to the cities from the farms there is often the frustration of not finding work. Much of the slum population is created by rural workers not being able to find work or being unqualified for employment in industry.

6. Transportation and Communication:

a. Although it is difficult to assess the effect of population growth, the commutor usually thinks of the population problem in terms of congested traffic. In 10 years the traffic on the roads has almost quadrupled but the density of roads has increased only 10%.

b. The mail per person per year has increased from 7.6 letters to 30.7 during the last 10 years.

7. Military:

a. A rapid population growth seems detrimental to military strength and defense capabilities. The rapid growth of population slows the capital growth needed for equipment and training.

b. In modern warfare, the emphasis is on quality not quantity.

c. It will be twenty years before the present program could have any conceivable effect on the population available for military service.

D. Favorable Factors*:

1. In countries in which there has been significant social and economic development, married couples are likely to be motivated to restrict family size for various reasons. This progress has been made in Taiwan without destroying traditional Chinese values and family relations. Most couples expect to live with their children in old age or at least be supported by them. The desire for sons is still important today. However, the change has been in the desire by couples to have less children and to provide more for them.

2. There has been a decline in the death rate due to the

*Conditions favorable to a decline have been summarized by Dr. Freedman in his 1965 Presidential Address to the Population Association of America. The views expressed here are not necessarily held by Dr. Freedman.

control of malaria, tuberculosis, and other diseases which were common killers just 50 years ago. The death rate has declined from 18.2 in 1942 to 5.5 in 1965, but during this time the birth rate has declined only from 38.3 to 32.7 As a result, there has been a natural increase from 20.2 to 27.2 per thousand per year. The death rate, which is lower than many western countries, is due to a large proportion of younger population.

3. A large demand existed for a good contraceptive in a market where the present supply was inadequate: about 10% of the women 20 to 39 in the Taichung Study tried to limit their family size by abortion and 14% had tried traditional supplies, but most couples considered these means inadequate. Although couples knew it was possible to control family size, only about a third of all wanting to limit childbirth were taking adequate precautions to have the desired family size before the family planning program began. Most people learned about birth control from drug stores, private doctors and mass media as well as friends, neighbors, and relatives. In 1964 there was about US$100,000 spent on advertising contraceptives in Taiwan. In addition, some one-third of those practicing family planning in the Taichung survey were using an intra-uterine device, the Ota Ring, which had been brought to Taiwan during the Japanese occupation.

4. Taiwan has good public health and private medical capabilities. It was possible to select, train and supervise workers with less effort than seems to have been required in India and Pakistan. This existing structure, combined

with a good communication and transportation network has made it possible to set up the operation. Supply lines for audio-visual aids, contraceptives and other items were established without many problems. The well-organized network of public organizations throughout Taiwan make it possible to coordinate the family planning program to some extent with existing institutions and leaders.

5. Taiwan is one of the countries which has based its family planning program on one of the new contraceptives which are likely to be both more acceptable and more effective than older methods. The intra-uterine device used as the main method in the Taiwan program is simple, safe, inexpensive and reversible. It requires no continuing action after insertion and is not connected with the sexual act. While the availability of such a method may not lead to its use without adequate motivation, such a superior method is likely to be especially attractive to couples who are ambivalent about family planning, during the period when the whole idea is new in the society.

II. OBJECTIVES

OVERALL

The overall objectives of the family planning program have been:

1. To enhance the health, welfare and happiness of mothers and children through provision of the opportunity for as many couples as possible to have children only when they are wanted and to integrate the idea of family limitation and small norms (preferably 3 children) within the existing attitudes, values, and goals of the people;
2. To liberalize policy restrictions by illustrating the problems of rapid population growth and the benefits of a family planning program as they relate to the Government and the people;

SPECIFIC

In order to accomplish these overall objectives, the following specific objectives for improving the contraceptive services and promotion effort during 1965, within the limits of policy and financial restrictions, were set:

1. To make the loop available to a minimum of 100,000 women by selecting and training 168 additional fieldworkers and 200 general practitioners;
2. To expand the free-offer-for-a-limited-time and incentive referral projects in order to determine their effect on closing the gap between the large number of women who in-

tend to control family size and the small percentage who actually do;

3. To apply additional findings of the Taichung Study to the program;
4. To undertake a fertility survey, a follow-up study of loop acceptors and other evaluation efforts in order to determine the impact of the program; to use demographic data to illustrate the population problem in such a way that there would be a more favorable population policy.
5. To determine the quality and distribution of commercially sold contraceptives as well as improve them.

III. TARGETS

A. The System:

1. Each worker has an arbitrary target based on the number of married women of child bearing age who are expected to respond every month from her township. This target during 1965 was based on an Island-wide goal of 100,000 loops. A township or city district allocated to a worker* contains about 30,000 population. During 1965, the first year the program was in full operation, this annual target roughly corresponded to 7% of the married women of child bearing age in the township or about 0.6% of these married women per month. This target is not dependent on the worker's case referrals alone but also on cooperation she can obtain from doctors inserting the loop, health station personnel, fliers distributed by volunteers, and oral communication. In 1965, 99.2% of the 100,000 loop target was achieved.
2. In addition, all workers are specifically responsible for referring 10 cases a month. This is a minimum target the worker is responsible for. If she does not succeed in obtaining this target for 3 months in succession she may be replaced.
3. The nurse supervisor from each county has a target which is based on the cumulative acceptances. Her stipend is provided based on results.

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* The Village Health Education Nurses are mobile and not assigned to a particular township.

4. The reporting on acceptances is very fast. A coupon is collected at the end of every month by the county nurse supervisor from the doctor for each case he inserted. This coupon is sent directly to the voluntary Maternal and Child Health Association for auditing and then to the Population Studies Center for evaluation. About 15 days after the end of a month the total number of loop cases is known, who referred the cases, and from where. Each worker is sent an evaluation sheet to inform her how many cases she referred the previous month, how many cases responded from her township, what proportion of her target she obtained for that month, and how far she has to go before completing the target assigned for her township that year. This information is sent to the workers each month.

B. Why Essential:

1. Experience in Taiwan has indicated that: acceptance targets are needed to determine budget requirements and the goals of the administrative staff and fieldworkers.
2. Without acceptance targets there is no responsibility for obtaining results. The targets for field staff in terms of acceptances and the amount of work to be done are necessary to determine their efficiency and work capacity, particularly when there is little previous experience to base work expectations on.
3. Within the general framework of the acceptance target, operational targets are needed to develop a time schedule

for training doctors in loop insertion and selecting, training, and supervising fieldworkers.

C. Basis For Acceptance and Operational Targets:

1. Acceptance targets are difficult to set because there is little experience which has accumulated and there are a large number of variable conditions. Some of the factors which need to be considered are:

   a. Proportion of women who have accepted similar contraceptive methods in similar settings with similar service and educational efforts.

   b. Surveys indicate many people who say they want to space or limit family size, who have tried ineffectively to control family size, or did not know it was possible, and who say they want to respond to the methods available. The problem is that the difference between words and action is so great that the surveys cannot always be considered reliable indication of the need to be met.

   c. Type of contraceptives which will be preferred, by whom, and in what way.

   d. Private and public medical capabilities; literacy; education; mobility of service and promotion effort; channels of supply for contraceptives.

   e. Government policy and money appropriated. Also potential use of agencies other than public health in promoting program.

   f. Potential use which can be made of the private sector

in marketing and advertising the methods.

g. Characteristics of population and prospective respondents as they relate to age, sex, education, occupation, literacy, income, number of children, age at marriage, and other relevant factors.

2. Operational targets are also necessary to guide action. Experience in Taiwan is that a deadline to accomplish the following activities should be quickly set:

   a. Training doctors in the methods which they will provide.

   b. Selecting, training, developing working procedures, and supervising field staff.

   c. Establishing supply lines for contraceptives and educational aids.

   d. Determining results of the program by a rapid reporting system. One key to meeting the deadline of an operational target is to allow enough time to get the work done but not enough to allow everybody participating to relax.

D. Summary:

In Taiwan, there are so many varying conditions from one area to another that it has often seemed impossible to set fair targets for each worker but each worker must have some target to be met. With targets, the worker knows what is expected of her and she will feel a responsibility to the program. Experience has been that if the targets are too

low, the fieldworkers will not work hard enough and if they are too high they become discouraged from working hard.

Since the initial arbitrary target-setting based on the 100,000 goal for 1965, a more elaborate formula for measuring other factors than size of population in the worker's township has evolved (c.f. p.60). The need for finding some way to take into account a worker's ability to help keep her patient's loops in longer is being explored during 1966.

IV. ORGANIZATION AND ADMINISTRATION

A. The Organization of the Family Planning Program

Ideally, the organizational structure supporting a successful family planning program should involve as many institutions, personnel, and supply channels as possible. It also should have a solid chain of command from administrators to workers, should not duplicate the services and promotion potential available in private and public sectors, and should be flexible enough to adjust to new problems.

On Taiwan, objectives are being implemented but within certain restrictive government policy limitations. The government has not allowed the use of funds from the national budget or participation by government employees, except for education by field staff. Restricted use of mass media has only begun with 1966. It does not provide contraceptives or funds for their purchase. However, the government does believe that in a free country each couple should decide the number of children they want and should be given the opportunity to have children only when they are wanted.

Some of the basic problems of establishing the Taiwan program without an official policy were solved in the following manner:

1. Finding the Funds:

The Economic Planning Board was convinced that a program was essential to keep economic progress ahead of population growth. In addition, it was further convinced that a family planning program investment would yield a high rate of return on each dollar spent. One of the most convincing illustrations was the effect of the increasing school age population on the number of schools needed in the future - an important factor in Taiwan because of the stress on education.

The funds could not be appropriated from the official Taiwan annual budget or from A. I. D. and the Taiwan government did not have policy allowing for support of a family planning program at that time. However, funds were available from the interest on counterpart A. I. D. loans which were no longer under U. S. jurisdiction. In October 1964, US$1,500,000 was approved for a five-year program. The Council for International Economic Cooperation and Development (CIECD), which was in charge of handling these funds in Taiwan, placed no fiscal-year limitation as to when the money could be spent.

The money, called "second generation" funds, is distributed through two channels. One is the Provincial Health Department which restricts its participation in the program to education in family planning. The other channel is a voluntary organization called the Maternal and Child Health Association which provides one-half the private doctor's fee for inserting loops or US$0.75 of the total US$1.50 per loop,

and handles other related aspects of the program beyond the educational aspect.

2. Providing the Contraceptives:

From 1959, over 120 pre-pregnancy health workers were providing condoms and foam tablets to about 40,000 couples on the island. The government approved this program because the objective of the workers was to "foster happy and healthy families in the community by protecting the mother's health" through spacing and limiting births.

When the loop was first approved for the present program in 1964, the Maternal and Child Health Association was formed. Traditional supplies were not emphasized. The present director of the M. C. H. A. is the wife of the Provincial Health Commissioner, Mrs. T. C. Hsu. Dr. L. P. Chow, Associate Director of the Taiwan Population Studies Center, acted as Secretary General. Aside from providing some publicity, the M. C. H. A. supplies over 500 private doctors with loops and inserters and pays them US$-0.75 for each insertion (in addition to the US$0.75 paid by the patient).

The County Nurse Supervisors in the 22 Health Bureaus are the members of the organization responsible for the loop insertions. They also supply the loops, inserters, and record forms. At the end of each month they send to the M. C. H. A. secretary, located at the Provincial Health Department, the total number of loops inserted.

Private practitioners, primarily OBGYN's, have done most of the insertions. During 1965 about 100 GP's were also

trained in loop insertion. Since the government policy is becoming more favorable to family planning, 34 more government health station doctors will begin insertion of loops during 1966. At the end of 1965, 24 doctors in the health stations were inserting loops. By March, 1966, 15 more had been trained. The provincial hospitals will provide sterilizations to a limited number of discontinued IUD users at a low-priced cost and health stations will treat women with complaints resulting from the loop.

3. Using the Government Employees:

All health personnel who participate in the program are members of the Maternal and Child Health Association. During 1965, the health station personnel representing the M. C. H. A. referred over 10.25% of the cases. Many things which cannot be done officially can be done under the auspices of the M. C. H. A.

4. Using the Mass Media:

Because the Maternal and Child Health Association is a non-governmental voluntary organization, it has been able to publicize the program, but only to a limited extent. Altough there was news coverage in various papers and on radio there was no large scale use of mass media through the end of 1965. Over a million fliers had been distributed explaining the loop and where it could be obtained. About 50,000 posters were printed and placed in villages over the island. During 1966, a limited mass media campaign using radio, TV, and slides at Taiwan's movie houses was getting underway. It is expected that this approach will do much to legitimate

the loop to the public as well as providing information on where to get it.

B. The Administration of the Family Planning Program:

1. Committee on Family Planning:

Once the policy and organization problems were solved, a Committee on Family Planning was established, with Dr. L. P. Chow as Secretary General in charge of administering the program. As Executive Secretary of the M. C. H. A. and Deputy Commissioner of the Provincial Health Department, he is well qualified for the post. He obtained degrees of Doctor of Medical Science from the Kagoshima University Medical College in Japan, and Doctor of Public Health from the Johns Hopkins University. He was senior specialist in the Rural Health Division of the Sino-American Joint Commission on Rural Reconstruction (J. C. R. R.) and is currently associate director of the Taiwan Population Studies Center. He has been responsible for training the doctors in loop insertion, developing working procedures for the field staff, and evaluating acceptances and the operation of the program. In the Taiwan Population Studies Center he is assisted by his Research Associate, Mr. H. C. Chen.

The Committee on Family Planning is divided into the standing and the working committee.

a. The Standing Committee has been responsible for overall policy. Its members are:

i. Dr. T. C. Hsu, Commissioner of the Provincial Health Department who has taken an active role in the family planning program by bringing about major improvements in the program through greater use of health personnel and mass media.

ii. Dr. S. C. Hsu, Chief of the Rural Health Division of J. C. R. R., who has provided the dynamic inspiration which has generated a great deal of interest in the program. The J. C. R. R. was set up after the war for rural development in China. Dr. Hsu is now actively pioneering rural sanitation and hygiene by volunteer action community participation. This is generated by teams of 3 nurses living in villages of about 2,000 people for one month. Dr. Hsu is assisted by Dr. K. K. Chang and Miss Julia Lieo in family planning and village health education demonstration projects.

iii. Mr. S. M. Keeny has been East Asia Representative of the Population Council for the past three years. He has overseen the development of programs using the IUCD in Taiwan and Korea. His previous administrative career includes such experience as UNRRA director in Italy and Asian Director of UNICEF in Bangkok for 13 years. Besides Korea and Taiwan, he is helping pioneer similar programs in Turkey, Thailand, India, Pakistan and the Philippines. He was assisted by the full-time staff representative, Mr. Robert Gillespie for over two years, until March 1966.

Mr. George P. Cernada, a Population Council Technical

Assistance Fellow, has been working on the project since July, 1965. He had previously been on the public relations staff of the New York State Department of Mental Hygiene before receiving his M.P.H.

The Population Council financed the IUCD research, the Taichung Study, and the Population Studies Center until July, 1964, and afterwards parts of the national program which could not be covered by the C. I. E. C. D. appropriation.

The objective of the Population Council is to advance knowledge in the broad field of population by fostering research, training, and technical consultation and assistance in the social and bio-medical sciences.

b. The Working Committee:

i. Dr. C. H. Lee who conducts the research on the IUCD has also been responsible for training the doctors in loop insertion.

ii. Miss Laura Lu is the Health Education Division chief of the Provincial Health Department. In the family planning program, she supervises the 78 village health nurses and the urban family planning workers as well as handles most of the preparation of health education materials for the family planning program. She has her M. P. H. from the University of North Carolina.

iii. Miss Tessie Huang is Taiwan's "leading midwife." She is in charge of the rural family planning workers. She has been responsible for selecting, training, deve-

loping working procedures and supervision of the pre-pregnancy workers since 1959.

2. Distribution of Fieldworkers:

There are 361 townships in Taiwan of which 30 are aboriginal townships. The pre-pregnancy health program does not include these aboriginal townships, at least for the time being. For the remaining 331 townships, the direct operational responsibility has been defined as follows:

Project	No. of Townships or City Districts	In Charge	Assistant	Super-visors	Workers
VHEN*	78	Laura Lu	2	6	86
Urban PPH** (Districts)	36	Laura Lu		5	50
Rural PPH (Townships)	190	Tessie Huang	3	13	190
Total	304		5	34	326

*VHEN = Village Health Education Program (half-time on family planning)
**PPH = Pre-pregnancy Health Program

C. Findings and Principles of Organization and Administration as They Apply to Taiwan:

1. Competent Leadership:

a. The administrative staff had previous experience with developing other large government programs before their participation in the family planning program.

b. The director of the program has been able to gain the respect, cooperation and participation of people and

organizations in the government and private sectors.

c. Training has not been always as important as imagination and hard work.

d. Although the program staff has not been as active in field trip observation work as so many fieldworkers demands, it is being noted that more supervision is essential in understanding the problems of the workers and doctors.

e. In Taiwan, it has been found that administrators should delegate competent individuals to follow-up details. Orders given at the top level for action have a curious way of filtering down to minimal and vague carry-out at the fieldworker level—unless there is constant follow-through and follow-up by a competent individual with an eye for detail.

f. The salary of the staff has been boosted as necessary to retain competent, experienced leadership.

g. Without the leadership Taiwan has had at the top level of the actual working program administration, little could have happened at the grass roots level.

h. The main asset of program leadership on Taiwan is that in a period of a little over two years the staff have conceived of some 40 or 50 ways of improving the program which have been put into action. The ones which have succeeded were expanded. Those which clearly failed were abandoned and worker morale has generally not suffered.

2. Committee Decision:

a. One of the ways found in Taiwan to effectively implement the program is to clearly decide at any top-level meeting of administrators who is to do what, with an appropriated sum, within a specific amount of time.

b. About every month, the family planning working committee meets with a specific agenda. The minutes which are given all participants after the meeting give specific instructions on what is to be done and how it is to be done, and when.

3. Administrative Ratio and Control:

a. In Taiwan's family planning program there is one administrative director and 3 top administrative assistants. Each administrative assistant has one assistant for 5 or 6 supervisors, and each supervisor is responsible for about 10 workers. Each worker has about 30,000 population to deal with but there are only about 2,000 women with 3 children or more.

b. Even with this seemingly tight ratio of control, there is not yet a good enough communications system between administrators and field staff to replace workers who are not producing results, or to establish definite working hours and procedures. Hopefully, these problems will be solved in 1966 with more specific definitions of job responsibilities and objectives given to the fieldworkers.

4. Private and Public Institutions and Individuals Used in Family Planning Program:

Because there has not been an official policy allowing active government participation, most of the outside participation in the program has been obtained at the grass-roots level, not at the top.

a. There has been active cooperation and participation from the private sector. The most important contribution has come from the over 500 private doctors inserting loops and approximately 3,500 organizations and persons in daily contact with the community who have distributed about a million fliers on the IUCD.

b. From the public sector, the health personnel have been the main group responsible for the execution of the program. When contacted by the fieldworkers, the military officers, teachers, agricultural workers, health personnel, registration clerks, political representatives, and local village and neighborhood leaders are cooperative and assist the program by helping in such ways as organizing group meetings and handing out literature.

c. Each worker tries to bring family planning to people meeting in groups. This helps legitimate the acceptance of small families and the practice of birth limitation or spacing.

d. The worker also tries to use people who meet daily for social or commercial purposes. This may be at the stream when the women gather to wash their clothes or at the marketplace where food is bought. At the home there

are friends who drop by and numerous door-to-door salesmen for almost everything: drugs, tooth paste, cosmetics, cloth, and soft drinks. As part of a special study, in some areas these people are also encouraged to refer loop cases. If they do, they get US$0.25 for each case they refer.

e. Private and public medical institutions and personnel are used within the limits of their capabilities or qualifications after training. There is an attempt to use every medical practitioner from obstetrician and trained midwife to herb doctor.

f. Taiwan has tried to simplify supply lines of contraceptives and materials by having as few depots from manufacture to the couples, or workers as possible. Feedback is as direct as possible from fieldworker to the top admininstrative levels. Further effort needs to be made to improve the quality of contraceptives locally manufactured or imported and to help with lowering cost. In addition, ways of improving distribution of contraceptives through commercial channels need more exploration.

g. Satisfied users are brought into the program in three ways: they give favorable testimony at group meetings; they are visited by women who want reassurance about the loop's safety and effectiveness; they hand out fliers.

5. Professional and Technical Disciplines Involved:

a. In Taiwan, there has been an overall effort to apply the most effective administrative principles to the family planning program implementation. An accounting and

reporting system allows administrative staff to know how many loops have been inserted in any one month and also the breakdown of who has been credited with the insertions. Effective principles of public information diffusion have brought the "loop" news to hundreds of thousands of Taiwan's women without the benefit of mass media. Professional training has been administered to some 500 private physicians. Gaps between supplier and purchaser have been closed by sensible attention to the basic marketing channels. Communication gaps between administration and field personnel continue to be narrowed by sound personnel management techniques. To help stimulate and maintain initiative directly related to production results, county and city health bureau chiefs and nurse supervisors are provided subsidies according to returns from their areas. Workers are paid a bonus for exceptional work; volunteers in a few selected areas are paid a small incentive for each case they refer. Doctors are paid only on a per case basis for insertions.

b. The medical profession has provided the guidelines for promoting the loop. Administratively liberal policies have been used with regards to time of insertion and who can insert the loop. If the OBGYN's can determine the direction of the uterus and insert a loop without puncturing the uterus, determine contraindications, use proper sterile techniques and treat side effects then they are given a one day's training session which qualifies them for loop insertion; general practitioners receive three days training.

c. Sociologists have helped with evaluation. The demographic characteristics of the respondents are determined each month. A survey was conducted to find out what happened to the respondents. An island-wide fertility survey conducted during 1965 measured the knowledge, attitude and practice of family planning along with other demographic factors. The attitude of male partners to family planning also was explored during 1965.

d. Health educators have helped with community organization, the development and production of audiovisual aids, the preparation of recent mass media materials, and fieldworker training.

e. There are many other scientific and technical skills which have been used or will be. Some of these are related to public administration, agricultural extension methods, public speaking, technology, retailing, merchandising, marketing research, operations research, pharmacology, community work, adult education, and graphic arts.

6. Demonstration and Research:

a. During the last two years the program has concentrated on demonstration projects not research. Some of these have been directly related to improving the "action" phase of the program; other not. Such studies as "free offer for a limited time only," and "incentive referral" are directly related to marketing or community organization principles. One of our main problems has been the delay between establishing findings of our demonstration projects and actually implementing them in the program.

b. The Ota Ring has been used on Taiwan for 20 years and accepted both by the medical profession and an estimated 7% of the married women 20 to 39 at the time of the Taichung Study. It was demonstrated during 1963, 64 and 65 that another similar IUCD, the loop, could have an even larger impact.

c. The principal objective of the action research projects is to find the least expensive way to refer cases. It seems that US$0.25 paid to a large number of individuals in a community for referring a case is one of the least expensive means of obtaining results. However, actual maintenance of this procedure over a long period of time has not been carried out. During 1966, some ten townships will be further studied. Several townships in Changhua County were studied in 1964 in this regard for demonstration purposes. The hypothesis was that the loop and traditional methods could be provided through existing medical and community resources and that people could be referred to these services by fliers and persons given incentive payments. The objective was to obtain as many acceptors as possible in a short time, with a minimum of effort and expense in terms of personnel and materials. The study also aimed at closing the gap between the large proportion of couples who say that they would like to space or limit their families and the small percentage of these same couples who actually take advantage of the existing contraceptive services. The criteria of the design were:

   i. The population in the project areas had to be large

enough to provide indicative results - the minimum population being 45,000.

ii. The action phase had to be completed by the field staff within two to three months and 95% of the couples had to be approached in this time.

iii. The cost of the projects had to be absorbed within the allocated budget and a budget had to be available for the expansion of the projects if they were successful.

iv. Nothing could be included unless the results provided specific guidelines for action on a national scale.

Since then, a large number of "action-oriented" demonstration studies to find ways of getting the most loops at the least cost have followed.

7. Flexibility:

The major problem on Taiwan as in other areas is once a phase of the program has failed, it often is difficult to discontinue it and try something new. There are few if any precedents in the world to base action on. At present the village health nurses are producing little in the way of family planning results. This raises many problems about the relation of their production to their cost (higher then PPH cost) in terms of family planning. In addition, eliminating poor PPH workers is proving difficult due to a lack of flexible firing procedures. The Family Planning Association of China found that large mobile clinic vans are rarely attended so the program in Taiwan uses mobile doctors going to health stations to insert the loop.

8. The Role of Financial and Technical Assistance:

When money is requested from a foundation or foreign assistance is needed, here are some points and recommendations based on Taiwan's experience.

a. Request for advisors who know how to help get the job done. Certain technicians and skills may be necessary such as physicians, public health administrators and marketing specialists for setting up the service; public health educators and mass media specialists for advising on the promotion effort; and statisticians and sociologists to measure the results. Don't request a foreigner if a local person can do the job.

b. Areas which usually need financial assistance are development of contraceptive service and family planning promotion. This includes the training of the private and public medical profession within the limits of their qualifications and developing as many supply channels as possible for condoms and foam tablets. In addition, selection, training, developing working procedures and supervision of field staff. This also means planning a mass media program. Finally, evaluating the results. The money required to accomplish this is a small part of the total necessary expenditures. The Council has supported almost all these costs here. Supporting these costs provides the assistance to help accomplish the job.

c. Request the dollar cost of items needed from abroad. This includes transportation, technical equipment such as 35 m. m. slide projectors, and medical instruments for

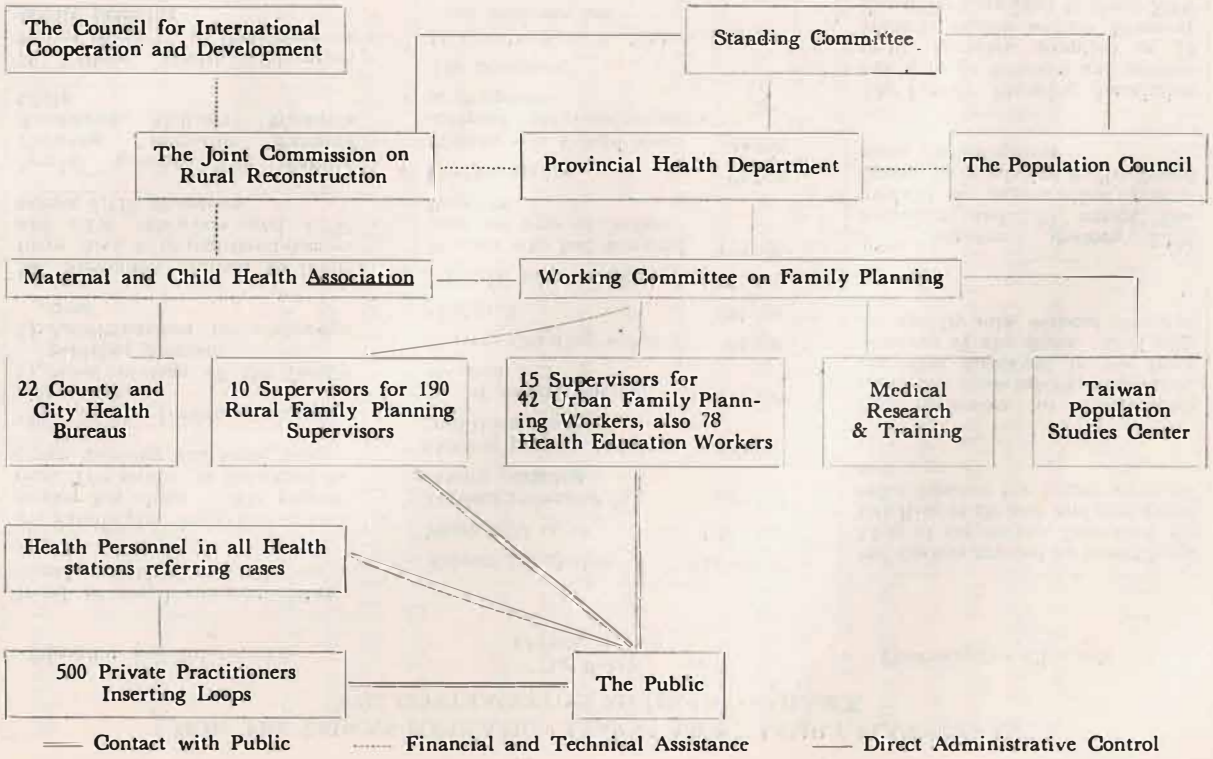
loop and sterilization.

d. Only request funds for the program which are not available locally for policy reasons.

e. Request only enough money to start the contraceptive services. After the supply lines of loops, inserters, and traditional contraceptives are established then transfer cost to local budgets.

f. Request enough money to attract the best administrators to work on the job.

ADMINISTRATIVE CHART OF THE FAMILY PLANNING PROGRAM ON TAIWAN



HOW THE TAIWAN POPULATION LEARNS ABOUT FAMILY PLANNING AND THE CONTRACEPTIVE METHODS AVAILABLE

Education and Information

- Word- of mouth communication, friends, neighbors and relatives
- 242 Family Planning Workers; each worker has about 33,000 population. The public is informed by group meetings and home visits
- Mass Media (newspapers, radio, magazines)
  1) News coverage of the family planning program
  2) Advertisements for contraceptives
- 560 Specialists trained to insert loops. Also, 4,978 registered doctors and 2,156 midwives and 1,892 nurses, 1,110 drugstores
- Special groups, The Family Planning Association Farmers Association, Military, Women's Clubs
- 78 Village Health Education Nurses spend $^1/_2$ of their time on family planning
- 1700 private midwives

The Public (Approximate)

Taiwan population	12,600,000
Women 20 to 44	1,512,000
Women interested in family planning	700,000
Current practice of traditional methods	227,000
No. of women having abortion	151,000
Current Ota ring wearers	94,500
Sterilized	81,500
Potential loop acceptors	380,000
Women who had accepted loop 2nd year of Action Program	150,000
Continuous use	95,000
Women who should have accepted traditional supplies at drugstores	40,000

The acceptors:

1) Usually have 3 children and at at least one son
2) Usually over 30

Contraceptive Channels

- 560 doctors trained to insert loop. Most of the doctors have used the Ota Ring in the past and performed tubal ligation for female sterilization
- 1,110 Chemists or Pharmacists Condoms, foam tablets, and jellies, are often displayed in the front windows of the stores. Oral pills are usually sold without prescription
- 4,978 registered doctors, 2,156 midwives, and 1,892 nurses, The medical & para-medical practitioners have advised & distributed many contraceptives
- The Family Planning Association has, through factories and government, agencies, supplied in 10 years to 80,000 women However the active case load is about 5,000

V. PROVIDING IUCD'S THE PHYSICIAN'S ROLE

Fundamental to the success of Taiwan's family planning program is the use of the private medical practitioners. The contraceptive methods to be used had to have the backing of the medical authorities and specialists. At the IUCD conference, in April, 1962, sponsored by the Population Council of New York, in New York City, the consensus of the participants was that "The IUCD offers a completely reversible method of controlling reproduction. The combined acceptability, effectiveness, and cheapness of this method exceeds contraceptives in common use".

In Taiwan, the China Medical Advisory Board gave its approval for the expanded use of the IUCD during March of 1964. The Advisory Board, consisting of Taiwan's leading obstetrician—gynecologists, was established to supervise the medical aspects of the program.

The use of respected physicians, particulary OB-GYN's, has legitimated the program in the eyes of the public. In addition to making insertions, the doctors themselves referred about 30% of of all Taiwan's acceptors during 1964 and over 20% during 1965.

A. How Loop Instruction Was Given to A Large Number of Doctors In A Short Time:

In 1964, all the names and addresses of the OB-GYN specialists were collected. Each county health director called

a meeting of the specialists in his county, informing them when and where loop instruction would be given.

The training sessions, lasting one day, consisted of a short briefiing on the family planning program, explanation of the nature of the loop, and detailed instructions on insertion. The sessions were conducted by two physicians.

Some 565 physicians attended 30 sessions during 1964 and 1965.

B. Instruction On The Insertion Of The Loop:

A pelvic model is used to demonstrate how the loop is inserted. It is first placed inside a small plastic tube. This curved tube is inserted into the uterus upwards or downwards, depending on the position of the uterus, and then rotated 90° so the loop lies on a frontal plane. The loop regains its original shape after the plunger pushes it into the uterus. The threads remain protruding through the cervix. These threads are not cut.

The following are the most important points covered during instruction class:

1. Why is the loop emphasized?

a) If 100 women were the 30 m.m. loop III, only 2 to 3 will become pregnant per year. Compared to most contraceptives in common use, this is a small number. The 27.5 (IV) and 30 mm (III) loops are preferred by the doctors because there are fewer expulsions, removals, and pregnancies with the larger loops.

b) Only about 10 of the 100 women will spontaneously expel the 30 mm loop.

c) About 10 to 20 women will have it removed usually because of bleeding, or desired pregnancy.

d) About 70 to 80 women will be able to carry the device without complications. During 1965, the 25 mm loop I was replaced by the 27.5 and 30 mm. loops.

2. When can the loop be inserted?

The ideal time for insertion is considered to be 1 to 7 days after the menstrual period. However, it can be inserted anytime, if the husband and wife are told to avoid intercourse starting 7 days after menstruation until the loop is inserted.

Several doctors in Taiwan have inserted loops 6 weeks after delivery at post partum clinics. At this time, the women are highly motivated toward family planning.

3. Will the loop be expelled?

In a few women, the loop is expelled during the first or second menstrual period. This, of course, mean that the protection is lost. To determine whether the loop is in place, the woman should wash her hands and feel for the two nylon strings which are in the vaginal canal. This should be done once a week. This is particularly important in the first and second months.

4. When should the loop be removed?

Most of the women wearing the loop will not have any

serious side effects. Some will have minor intermenstrual bleeding for a short time. This can be expected and does no damage to the woman's health. The loop should be removed in the rare cases where the intermenstrual bleeding continues more than two weeks. If pregnancy occurs, the loop should be removed. The persistence of severe cramps, back aches, or abdominal pain also warrants removal. Many doctors have worried about pelvic infection. There is little danger of this if the insertion has been done with proper sterile technique. The incidence of pelvic infection in the Taichung study was only 1 in 300. This infection cannot be attributed to the loop. It occurs in this proportion of women without loops.

5. How often does pregnancy with the loop in place occur?

The depends on the size of the loop. The pregnancy rate per 100 women year of exposure varies from 2 to 5 with the small loop (25 m.m.) and 1 to 3 with the larger sizes (30 to 31 m.m.). The rate of pregnancy, when no contraception is used, is about 80 to 90; the condom and diaphragm 5 to 20; and around 30 for most other traditional methods. No harm to mother or child results from an unplanned pregnancy when the loop is in place.

6. How does the loop prevent conception?

The actual mechanics are unknown, but studies indicate that the loop prevents fertilization of the egg, rather than implantation.

Two doctors experimented on monkeys. It was shown that the IUD produces a rapid discharge of the ova from the fallopian tubes, thus preventing fertilization.

7. What are the contraindications?

Women with the following conditions should not wear a loop:

a) Large fibroids or tumors
b) Acute or subacute pelvic inflammatory disease
c) Cancer
d) Pregnancy
e) A history of severe intermenstrual bleeding or excessive menstrual bleeding.

8. After the insertion, when should the patient return to the doctor?

The patient is advised to return to the doctor one month, six months and one year after the insertion. Our experience shows that patients with complication return on their own accord.

9. What should the doctor tell the patient?

a) That a certain amount of intermenstrual bleeding may occur, along with minor back aches, and abdominal pains but that they will usually disappear after a short time.
b) If the pain or bleeding persist, return to the doctor.
c) The strings should be checked at least once a week.

The attittude of the doctor is very important in secur-

ing the confidence of the patient, who may have to be reassured that the loop is effective and harmless. The Taichung Study illustrated that voluntary removals declined and reinsertions increased as the number of satisfied loop users increased.

10. What size loop should be used?

All four loop sizes were being produced in Taiwan during 1964-65 mm. (Loop I), 31 m.m. (Loop II), 30 m.m. (Loop III), 27.5 m.m. (Loop IV). During 1965 the 25 m.m. loop was discontinued due to its higher pregnancy rate. Expulsion, removal, pegnancy and discontinuation rates are lower with the larger loops. No. III seems best suited to most women in Taiwan. It is not difficult to insert and the discontinuation rate is low.

C. Other Questions Most Commonly Asked By Doctors At the First Stage Of The Taiwan Program:

1. Does the string protruding from the cervix act as a channel for pathogenic bacteria?

There is no medical evidence to support this assumption. Occurence of infection is about the same with loop and ring wearers.

2. Does the loop cause cancer?

Medical studies conducted in may countries have shown absolutely no connection between the occurrence of cancer

and the presence of an IUCD.

3. Will the loss of blood from intermenstrual bleeding make the women weak?

Usually not. She can continue her daily work after she is used to the foreign body.

4. How long can the loop stay in place?

As long as the woman wishes. When pregnancy is desired, the loop can be removed. Conception usually follows promptly.

5. Would women On Taiwan wear an intrauterine device?

Many Taiwanese women know of the Japanese Ota Ring, an intrauterine contraceptive device, and about one-third of those practing contraception in the Taichung study had used it at one time or other.

6. What is the difference between the Ota Ring and the Loop?

Although the Ota Ring is effective, dilation of the cervix and an anaesthetic are often necessary for its insertion and removal. The insertion of the loop is easier.

7. Were there many complaints about the Ota Ring?

Based on an island-wide survey it is estimated that over 150,000 women on Taiwan were using the device during 1964. A large proportion of these insertions have been done

by general practitioners and midwives. If there have been any serious complications as a result, the popularity of the device has not been significantly affected.

D. The Doctors Practice Loop Insertion:

Each doctor inserts a loop after having watched an actual demonstration. After the instruction class is completed, the doctors are qualified to start doing insertions. They are supplied with record forms, loops, and inserters by the county nurse supervisor, who is also responsible for paying NT$30 for each loop inserted. With adequate assistance, a doctor can insert 10 loops per hour, 60 a day.

E. Medical Practitioners Are Kept Informed:

The doctors are sent a newsletter about every 2 months to keep them in touch with the pogram. They are also informed of research findings with regard to the loop and other contraceptives being tested. During the latter part of 1965 and during early 1966, most participating doctors were called to the County Health Bureaus. There they were instructed on treating complaints with the loop in place and brought up to date on current research.

The Taiwan medical and health journals give thorough coverage to the program and the medical research with it. The newspapers have had some 36 articles related to the IUCD over 1964 and 1965.

F. Questionnaire to The Doctors:

During 1965 a questionnaire was sent to all the doctors inserting the loop. Two of the findings can be summarized as follows:

1. All the doctors have had previous experience with the Ota Ring. The doctors put in about one Ota Ring for every four loops. They believe the loop is easier to insert and remove but they believe there are fewer expulsions, removals, and pregnancies with the ring.

2. About 60% offer advice on contraceptive practice without a request from the patients and 40% offer advice only when asked.

G. Survey of Clinical Records:

An analysis was made of a sample of 1,828 clinical records of private doctors during 1965. Some of the findings were:

1. Only 23.5% of the acceptors had prior experience with contraceptives, of which 53.3% had used traditional supplies, 43.4%, the Ota Ring and 3.4%, the oral pills.

2. Although all cases were told to return one month, six months and every year after the insertion, only 51% of the cases returned for an exam. At the time of the check-up, 96.7% of the cases had the device in place. For 84.7% of the cases the first medical check-up was within 3 months of the date of insertion.

3. Abortion increases with the number of prior pregnancies.

No. of Pregnancies	%Women having at least one induced abortion
0 - 2	3%
3 - 4	5%
5 - 6	8%
7 - 8	12%
9 or over	18%

H. Plans For 1966:

To meet the requirements of the target of 500,000 loops in the next four years, it will be necessary to train more doctors. There are about 100 townships in the Province without an obstetrician or qualified general practitioner. Training of health station doctors in each of these townships is essential. By March 1966, some 18 of these health station doctors had undergone training.

The movement in physician training has been from the private specialist OBGYN (some 480 making insertions) to private general practitioners (some 92 trained) to less-skilled health station physicians (some 18 trained). For those townships without private physicians or health station physicians qualified to undertake the loop training, a mobile doctor scheme has been implemented on a limited scale during 1965-66.

VI. SELECTION, TRAINING, WORKING PROCEDURES, OF FIELD STAFF

There are two types of fieldworkers used in the Taiwan family planning program. One called the Pre-Pregnancy Health worker (PPH); the other the Village Health Education Nurse (VHEN).

There were some 244 PPH workers working fulltime on the family planning program as of December, 1965. At the same time there were only 78 VHEN's working on the family planning program on a half-time basis.

The returns per individual in terms of loop acceptances during 1965 indicate that the average PPH referred some 18.4 cases per month, as compared to the average VHEN who referred only 7.4 cases per month.

Although the VHEN is generally a higher-educated worker, she is generally younger than the PPH and does not enjoy the advantage of being in one township any length of time, since village health work is based on a mobile approach to community organization. It is also difficult to evaluate just how much she may stimulate the movement toward family planning acceptance during her stay at a village. The number of referrals for the time alloted to family planning is comparatively low among the VHEN's. This raises questions for the future about the relatively high amount of budget involved in their work. This, of course, is in rela-

tion to family planning and does not take into consideration the type of educational village sanitation program they have undertaken.

A. How A Good Family Planning Worker Is Selected?

Some of the best fieldworkers have been found among the nurse—midwives, agricultural extension workers, home economics, and door-to door saleswomen.

Notification of job openings are placed in newspapers and circulars are sent out to health stations, nursing schools and various community organizations where the best workers are likely to be found.

The minimum requirements are a high school education, good references, and some experience in dealing with people. For the first screening, the PPH Selection Committee sets only minimum requirements, so that they have a large number of applicants from which to choose. Applicants with nurse—midwife training are given high priority.

If the applicants fulfill these minimum requirements, they are sent a notice stating when and where a written examination will be given in their county. This exam tests their ability to deal with people and their general knowledge of health. Most applicants pass this test without difficulty.

The final selection comes when the Selection Committee interviews the applicants. Prospective workers are chosen on the basis of their composure, maturity, personal integrity, de-

dication to family planning, and enthusiasm. The best field-workers in Taiwan, generally speaking:

1. Are women, usually over 25 yrs. old, often 30 or more, emotionally mature, living in the community where they will work;
2. usually married, with at least 2 to 3 children;
3. know the local language and have backgrounds similar to those of the people with whom they work;
4. are capable of convincing people of the value of the IUCD;
5. are composed during home visits and group meetings and able to encourage participation of attendents at meetings discussing contraceptives and the advantages of a small family;
6. have some nurse-midwife training, but the most effective are imaginative, hard working and dedicated.

B. Training Procedure For Fieldworkers:

The time and thoroughness of the training has varied from 3 days for most PPH workers to 3 weeks for the VHEN's. The present training schedule is approximately 2 weeks for all workers.

The training period is divided into 16 subjects:

1. Introduction. During the first morning the leading health officials give short introductory talks. *One half day.*

2. Taiwan's population problem. *One half day.*

3. Taiwan's health organization. *One half day.*

4. Village health education and improvement. Along with family planning assistance, village health improvement is essential. By helping couples with child care, home sanitation and improvement, the workers gain the confidence and trust of the women in their area. Helping families plan their budgets is also helpful. *One day.*

5. History of family planning program. *One half day.*

6. The reproductive process. *One day.*

7. Contraceptive methods. Supply and distribution procedures are also discussed. *One day.*

8. Family planning studies: Findings applied to Taiwan. *One half day.*

9. How to use audio-visual aids effectively. A kit containing a wide variety of visual aids is used by both the VHEN's and the PPH workers. The kit consists of film strips, flip charts, a flannel board, an anatomical model, and posters. The aids explain simply the physiology of reproduction, the "why" of family planning, and the major methods of contraception. Some of these aids, for example, the flip charts, are used in home visits. If a fieldworker is talking to an audience of under 15 to 20 people, the flip charts are preferred to the film strips, which require a sereen and projector. They are lighter and easier to carry and use, also allow the worker to speak facing the audience. *One day.*

10. Public speaking skills and planning a group meeting. The trainees are divided into groups and each one practics giving a speech to audiences varying in size, composition, major interests, and education levels, at varytimes, and at locations with varying facilities. Members of the audience must feel that people like themselves have practiced family planning, as a natural part of married life. *One day.*

11. Health education and typical home visit situations. Each fieldworker must be convinced of the value of the IUCD method. She must convey this to her clients. She must learn to show an interest in people, be a good listener, make the person with whom she is speaking feel important, talk in terms of the person's interest, avoid arguments, and get the other person to say "yes". To develop these skills, typical home visiting situations are created, one trainee assuming the role of husband or wife, the other the fieldworker. Based on the training program in Korea, some of these situations have the worker making the visit to a home where the woman or family is: too busy, not expecting a visit, childless, or desiring sterilization. *One day.*

12. How to use the public information media?

    The workers are taught how to prepare news-releases on speciffc current events. For political reasons, an organized procedure for utilizing mass media has not been developed. *One half day.*

13. Working with community organizations. The trainees

are taught to work with organizations such as the Farmers' Association, Parent-Teachers Association, Mothers' Clubs, Doctors, Nurses, and Midwives' Organizations and other village and township groups. They are instructed to first contact the local representative of the organization. This contact can be assisted in two way. First, a top level family planning administrator can contact the most influential leader in the organization. Secondly, she can have with her a member of the group when she makes her first contact with the local representative. After contact has been made, she arranges the time and a place where a talk can be given to the members of the organization. At the talk, she should be introduced by the local representative and, if possible, have him give supporting comment. After the talk, supporting comment by a doctor, or, if possible, a satisfied loop user, should be made. The worker tries to bring all the attendents at the group meeting into discussion about the advantages of small families and contraceptives. Then, she should supply contraceptives and coupons needed for the loop. In order to avoid embarrassment to those women wanting the coupons, she should give coupons to all women present, asking those who don't want them to return them after the meeting. If too many coupons are freely distributed they are devaluated, so coupon distribution is usually limited to those women who say they will go to the doctors within 6 weeks. *One half day.*

14. Record and report forms. The compiling of records, re-

ports and surveys gives statistical understanding of the quantity of the work accomplished. The quality of the work is determined by field evaluation. *One day.*

15. Questions and answers. *One half day.*
16. Field work practice. Supervisors keep close watch and also demonstrate effective technigues in "live" home and group settings. *4 days.*

C. Working Procedures

1. Each PPH worker has about 30,000 people in her area, with about 5,400 households, 3,600 women 20 to 44, and about 300 lins. A Lin is a neighborhood household unit with usually about 15 to 20 families.
2. Her working capacity in a year is about 1,600 initial home visits, plus 400 follow-up visits, and 100 lin meetings. By dividing her working capacity (home visits and lin meetings), by population target (households, high parity women, or lins), she can determine what proportion of the population she can be expected to approach in the first year:

   $\frac{\text{1,600 meetings}}{\text{5,400 households}}$ = about 30% of the households

   $\frac{\text{100 lin meetings}}{\text{300 lins}}$ = 1/3 of the lins

3. But the fieldworker knows that women who have not had at least 3 children, including at least one son, will usually not be interested in family planning. Most women

in Taiwan seem to want to have the number of children desired one right after the other, and then stop childbearing. In order to save time, the worker copies from the village registration list, the names and addresses of those women who have 3 children and at least one son. This eliminates over a third of the households. As the number of acceptors increases, more emphasis will have to be placed on spacing.

4. The worker also budgets her time by conducting lin meetings for just the women with many children. During these group meetings, visual aids, such as flip charts, slides, and pelvic models are used. The group meetings serve two main functions. They are educational; but, more importantly they provide social support for women who become aware that small families are socially acceptable. The women also learn that many people in the community are already using means to have only the number of children desired.

5. It has been found that women with a recent pregnancy are most likely to respond. During 1965, the 25 or so women per township who have just had their 3rd, 4th or 5th or 6th birth will be visited by the worker shortly after childbirth.

   These names and addresses are quickly recorded at registration offices and readily available to the workers.

6. The workers are encouraged to get other people to do their work for ehem. They use people in daily contact with the community to distribute fliers. In addition,

there is much emphasis on the use of "satisfied" loop acceptors by the worker to increase loop referrals.

7. More emphasis will be placed on reassuring women to increase continuous use.

D. The Art of Supervision

The VHEN's, during 1965, have had 10 female supervisors, who live in the townships with the workers, and four male supervisors, who spend about 10 days a month visiting the workers in the field. The PPH workers have 16 supervisors, each assigned to a certain area.

The principal qualities of a good supervisor are:

1. A perceptive understanding of the local conditions. He or she must be acquainted with the community leaders and health personnel and must be able to determine the amount of cooperation and respect commanded by the fieldworker.

2. The ability to analyze record forms perceptively, by relating the quantity of work accomplished to the specific circumstances. He or she knows what is expected of a worker during a certain amount of time, and what proportion of couples approached, by group meetings and home visits, are likely to accept a coupon or traditional supplies. In short, a good supervisor can spot work that is going badly by knowing what to expect under certain conditions.

3. The ability to determine the quality of work when ac-

companying the worker on a home visit or to a lin meeting. Constructive advice is given to improve worker efficiency whenever possible.

4. The ability to discover the problems and needs of a worker and, if possible, find a solution. If a solution cannot be found in the field, the problem is referred to a higher administrative level.

5. The ability to apply in the field, new findings of research projects. It is of utmost importance that the supervisors keep the field staff informed of the new methods which have been tried and tested.

6. The ability to increase the morale of the fieldworker and give her a sense of her own importance.

Generally speaking, the quality and quantity of PPH supervision has not been as high as it should be. Supervisors do not always check as often or as closely on PPH workers as they should. Some of the problems may be because the supervisors were appointed to their position because of their marked ability to produce loop acceptors. Unfortunately, a good worker does not always make a good supervisor. At present, a working procedure manual is being developed to give the supervisors more guidelines to help direct fieldwork activity. In order to relieve the problem of having to reward good workers by making them supervisors, bonuses on a quarterly basis, based on work performance, are being offered during 1966 to all fieldworkers.

E. Measuring Results

During 1964 and through mid-1965, much of the performance of the worker was based on her fulfilling her township's arbitrary quota based on the overall annual target.

However, it was felt a target set by the number of married women in an area was not satisfactory since:

1. The size of married female population varies
2. OBG doctor may not be available
3. socio-economic and cultural factors vary
4. previous rate of IUCD acceptance varies significantly.

To help solve the problem, a formula to weigh these variables was developed by the TPSC.

According to it, the number of cases expected from a worker each month (L) equals:

$$L = 8.6 + 0.3T - 0.2R$$

(L is No. of IUD cases expected monthly, T is the total married female population 20-44 in area, R is the rate of acceptance in area).

In addition, an accomplishment index has been developed to relate the worker to others in the program:

$$\text{Index} = \frac{\text{Total IUD cases from area} \times 0.3 + \text{IUD cases actually referred by worker} \times 0.7}{L} \times 100$$

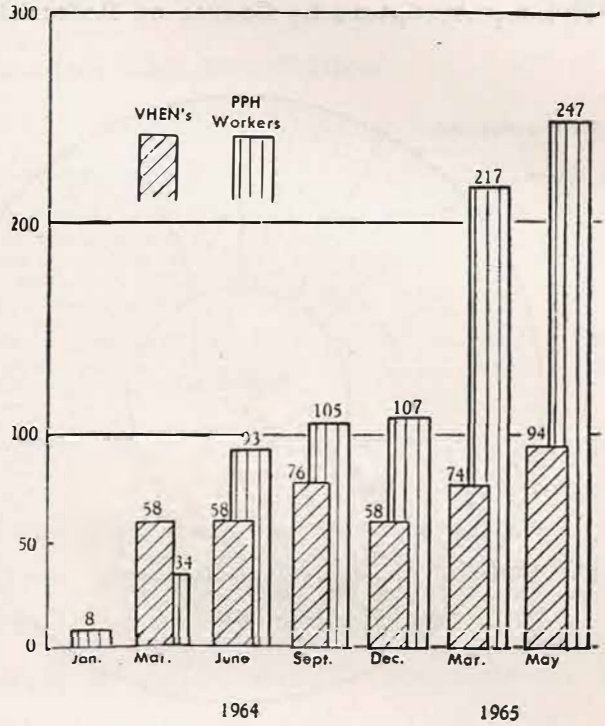
The effect of such evaluation will be to more closely consider the worker's efforts in regard to previous cumulative IUCD acceptance in her assigned working area. Inevit-

ably, there will be the problem of exchusting higher parity women in the working areas. The answer to continuing the number of acceptances after this phase will be stressing child-spacing as well.

In addition, during 1966 there will be much emphasis on increasing continuous usage of the loop through increased fieldworker and physician education as well as providing medications for follow-up at health stations.

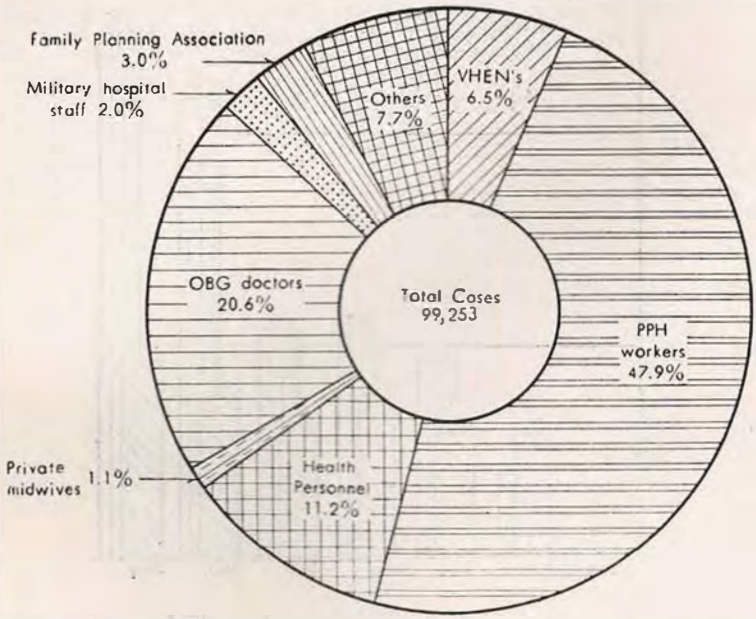
The Workers

Field Workers in the IUD Program



There are two types of workers. The PPH workers are assigned to the respective townships, one in each. The Village Health Education Nurses (VHEN's) were originally employed for the improvement of village sanitation, but now have integrated family planning into their educational activities. The latter move monthly from village to village in teams of 3.

1965 Loop Acceptors by Source of Referrals



Note that the experienced, full-time PPH workers produce the largest group of acceptors. The private doctors who insert the loops add greatly to the numbers at no extra cost for finding the cases.

VII. FACTORS RELATED TO LOOP REFERRALS

A. Methods of Approach

1. Volunteer Flier Distribution:

All workers are told to get other people to work for them whenever possible. During 1965, about 3,500 volunteers distributed over one million fliers which explain the main points about the loop and where the doctors inserting the loop are located. We do not know how many fliers have been distributed by each source but most workers continue to request more.

There are three instructions the worker is given when she selects the persons who will be most effective in distributing the fliers. First, she should choose people who are in daily contact with the community and who are respected by the people in the community.

Second, in Taiwan there are salespeople who go from home-to-home selling merchandise. There is one salesman for each type of commonly purchased item such as drugs, cloth, soft drinks, vegetables etc. These salespeople and women selling in the marketplace and in the shops are also asked to distribute fliers.

Third, women satisfied with the loop and people who see women who have just delivered babies should be given fliers.

About 90% of the workers have satisfied users distributing the fliers. The doctors, nurses, and midwives who deliver babies and township registration clerks who record births hand out fliers.

The fliers which cost less than one tenth of one penny (U.S.) in Taiwan can be used in areas where literacy is above 30%. A sample of the fliers is on page 134.

In order to make the flier more effective, a specific appointment with the doctor is recorded on the flier. At the end of the text and before the name and address of the doctor are two blank spaces. They are filled in by the field-worker or volunteer so that the woman feels she to go to the doctor at a specific time. This helps commit the woman to her intentions.

Some of the most commonly used distributors of fliers are the hair dressers, village leaders, drugstore workers and herbologists, and factory and union personnel.

One of the most effective means of distributing the flier is through the mail. This is described more fully on page 133. We do not know the total impact of the flier distribution but we can believe they help in supporting the program.

2. Group Meetings:

Group meetings are helpful in two ways: 1) to gather more people together at one time, and 2) to provide an atmosphere in which open discussion and group presence may help increase factors facilitating acceptance of the loop.

The worker makes a list of all the groups which regularly meet. Meetings are held by the Farmers' Association, Lin and Li leaders, Parent Teachers Association, Women Clubs, Union and Factory Leaders, religious groups and professional organizations. At these, and during puppet shows, movies, medicine shows and other entertainment, the worker can combine family planning discussion with the meetings and distribute fliers, show slides (each worker has a small, inexpensive, portable projector), or give talks using flipcharts.

Further discussion of group meeting may be found in the Demonstration Studies Chapter, page 113.

3. Home Visits:

All PPH and VHEN's make home visits. The PPH's are restricted to a district or township of about 30,000 people.

The approach used is to select the women with three or more children and visit these first. In addition, the worker is supposed to be working in every fifth village and then moving to another not bordering the one she has just done, based on the Taichung Study.

The workers average about 8-10 visits per day, each lasting about 20 to 30 minutes each. The approach used is to discuss overall family health and then relate family planning to nutrition, childcare, maternal health, and education. During 1965, most people visited were interested in the "how" rather than the "why" of Family planning.

4. Word-of-Mouth Communication:

Very little is known about what is communicated by

people talking to one another and what impact it has on acceptance and rejection of a family planning program and contraceptive methods. From a survey of women who had heard about the program from friends who had attended group meetings it was learned that the women discussed nethods offered and where they could be obtained. The workers report that the main problem they have is with complaints from dissatisfied users. This may be more of an excuse for poor worker performance than a cause. In the Taichung Study it is believed that many women responding to the program did so as a result of information from friends, neighbors, and relatives of people in direct contact with fieldworkers. About 90% of the fieldworkers have used women satisfied with the loop to reassure the women who hesitate to respond but we do not know the total amount of satisfied users actively referring cases. During 1966, much emphasis is being placed on finding various ways to best use the satisfied user to increase loop acceptance and retention. The importance of oral communication can be seen from the large number of townships without fieldworkers which return a high average of monthly IUCD acceptors.

5. Mass Communications:

Because the program does not have the official support of the Government there was no large scale use of mass media in 1965. However, the program has made its own news. There is no complete record of what items are reported in magazines, on T.V. or radio. We do have an idea of what reaches the newspapers because articles on population and family planning are clipped out every month from 15

of Taiwan's 22 newspapers. The circulation of all newspapers is about 800,000. These 15 papers comprise about two-third of the total circulation.

From January to December 1965, there was a total of 319 articles related to population and family planning.

There were 148 general articles on the problems of population in the world and on Taiwan. The Taiwan Population Studies Center released the few items on Taiwan's population and the others came in on the international wire services.

There were 132 items on family planning programs in other countries and Taiwan. In addition, there were 36 articles specifically discussing the IUCD program in Taiwan and only 3 articles not supporting the program.

It seems reasonable to estimate that over 500 articles on population, family planning, and the IUCD were printed during 1965.

During 1964, the news items increased from 6 in January to 14 in March and 38 in September. During 1965 the average was 29 news items per month, with a low in June of 10 and a high in October of 53.

Family Planning and population matters are news items because they are controversial and only in the past few years have been openly discussed.

Besides the newspaper and radio many women saw the posters which are used in Taiwan. One series of posters uses a grandmother, a voice of authority in the Chinese com-

munity, explaining the "why" of family planning. Each poster has directions to the location of the family planning facilities in the area.

Because there is now more government approval, the newspapers, radio, magazines, direct mail, outdoor advertising, TV, movie theaters are being used on a limited scale during 1966 to inform women about the loop and where it is available.

B. Other Loop Referral Sources

1. The Military:

During 1964, 21 military doctors were trained to insert the loop along with 80 military nurses who have been referring military dependents to the doctors for loops. In 1965 about 2.01% of all the cases came from this source. The military families have the smallest number of children per family of any profession. The "why" of this is not know. In any case, the large number of young men in the armed services provides an ideal situation for teaching family planning. These young men will start having families when they are released from active duty. The Population Council has prepared audio-visual aids for this purpose, which are now being used.

2. The Village Health Education Nurses:

Under the direction of Miss Laura Lu, chief of the Provincial Health Dept. Health Education Division, the village health workers have spent half their time on health

improvement and the remaining half on family planning education.

During 1965 there were 100 VHEN's, 78 were working in townships with no PPH worker and 22 in military dependent villages.

With three nurses combining to make a team, one team is assigned to a township. It has been difficult for the workers to make significant changes in the health habits of the families in the villages. Fundamental to the success of the program is the cooperation of the community leaders—health personnel, civil servants and all county, city, lin and li leaders. However, rapid progress is being made in model areas near Taipei, under the direction of Dr. S. C. Hsu of the JCRR. The wife of the President, Madame Chiang Kai-shek, is taking an active interest in village health improvement in the more depressed areas in Taiwan.

Each team contacts the community leaders, including the civil affairs personnel, the principals and teachers of the local schools, the leading doctors, midwives, health personnel and other official and non-official leaders in tne community. Their cooperation is essential. The VHEN's introduce themselves, explain their mission and how the leader can participate in the village health program. During the first two weeks, the team teaches the families in the area about sanitation, nutrition, fly control, and personal hygiene. The family planning effort is concentrated in the last two weeks of their stay.

The VHEN workers are less effective in terms of referr-

ing IUCD cases than the PPH workers. Although they have less education and training, the PPH workers are permanent workers in areas with about 30,000 population. They are usually more familiar with the people in their community. In addition, they are usually older than the VHEN and perhaps more able to convince the mothers of their own age about the loop. At present the modal acceptor is age 30-34 in Taiwan.

One conclusion seems to be that the stationary worker is more influential than a mobile field worker. This is not necessarily true. The more mobile VHEN's using free offers for a limited time or incentive referral plans have done particularly well during late 1965 and early 1966. Also, a mobile team can generate more oral communication and can eventually cover a broader area and contact more people.

In fact, toward the end of 1966, the mobile VHEN's were being used in ten townships hauing free loop offers and in ten others to help organize community resources for an incentive referral program. It is expected that their greater mobility and training in community organization will contribute further to the program during 1966.

3. Private Medical Practitioners:

The participation of private medical practitioners is essential to the success of a national program. First, all the medical practitioners who are capable of being trained to insert loops are needed. Sterilization and oral pills will also be used in 1966 and will require physician participation.

Second, the medical practitioners have a large private practice from which cases can be referred. Third, the medical practitioners legitimate the program and as active participants are more likely to support it. Fourth, special emphasis is given to doctors, nurses, and midwives who deliver babies. Since 80% of the deliveries are done by midwives, most of them unqualified, special training will be given to all midwives to bring them more actively into the program.

All the obstetricians who are inserting loops refer cases. They have been credited with referring 20.6% of the cases during 1965. Some of the cases are from the doctor's private practice but others are women who have heard about the loop from friends and neighbors, fliers distributed by volunteers, and the mass media.

The general practitioners who were trained in the 59 townships where there were no specialists referred fewer cases than expected. They may be partly because many women did not have confidence in the skill of the general practitioners and that there is often transportation to the cities where OBGYN's are located. So far, certain midwives given US$0.25 for each case they refer have not been cooperative. Probably the payment should be closer to what they charge for delivery.

It is felt that midwives will cooperate with a family planning program if properly organized and paid for participation. In 1966, more midwives will be given special training and brought in to actively participating in the program. As yet, there have not been many cases referred by the few midwives who are handing out coupons. Only 80

cases are referred each month by the midwives. A pilot project to determine the value of using the midwife in a post-partum approach began in February 1966 in one of Taiwan's 22 administrative jurisdictions.

4. Public Health Personnel:

Although there is no formal policy, the public health officials have been cooperative, due partially to stipends provided by the Population Council. Each county health director and nurse supervisor is paid a small sum based on the accomplishment for the month. About 40% of the health station personnel actively refer cases. They are credited with referring 10.2% of the cases during 1965. At least 40 health station doctors had been trained and were inserting loops by March, 1966. There are plans for at least 20 more being trained during the rest of 1966. One of the major problems is the low qualifications of the health station doctors.

5. The Family Planning Association of China:

In August, 1954, the Family Planning Associasion was chartered by the Ministry of Interior. Mrs. Shu-Kan, Secretary General of the Association, has provided the leadership from its beginning. She also has been appointed advisor to the national pre-pregnancy health program.

The Purposes of the non-profit organization are:

1. To provide family planning guidance and service;
2. To provide service for infertile couples;

3. To place unwanted children in homes where they can be afforded and given proper care;

4. To give gynecological services to those who cannot afford it.

Although the funds of the F.P.A. have been limited, a cumulative total of 60,141 couples have been given family planning guidance during the last 10 years. About 8,000 couples are currently using the facilities to obtain contraceptive supplies.

The Association has worked with industrial and government organizations to provide services to the people working in these organizations. In total, there are 23 organizations with 139 branches or outlets for contraceptive services. Some of the organizations are: The Taiwan Power Company, Taiwan Sugar Corporation, Petroleum Company, Fishing Association, and Salt Bureau. The midwives or nurses from these organizations come to the FPA for a two-day training period. When they return, they are provided with educational materials and contraceptives, primarily condoms. There are about 2,500 current users in this program, although the cumulative total of acceptors is 7,000. From a survey of cumulative acceptors, 1.45% pregnancies occurred indicating that many of the initial acceptors received additional supplies from commercial sources.

In June, 1963, a family planning project was started in three slum districts in Taipei city. The project was assisted technically by Dr. Clarence Gamble of the Pathfinder Fund and financially by the Asia and Brush Foundations.

During the first year, 5,222 home visits and 3,441 follow-up visits were made. After a year, 2,302 persons received supplies at their homes or from the supply depots.

From June, 1962 to July, 1964, the fieldworkers conducted 20,477 home visit with 3,126 acceptors from the Association center. A Pharmaceutical Company donated 30,000 oral pills to the Association, enough for 104 couples continuously using the supplies for one year. Dr. Jack Lippes visited the Association at the beginning of the year and as a result, loops were added to the contraceptives offered. During 1964, there were 84 loops, and there were 3,000 cases in 1965.

During the 10 years of its existence, the Association has helped 381 infertile couples and placed 247 children in homes. Of the babies given to the Association, 85% are girls. They are given away or abandoned because their parents cannot afford to feed or provide for the basic necessities. Three fourths of the parents leaving their babies have four or more children.

Part of the success of the program can be attributed to the publicity it has received. From June, 1963 to July 1964, about 800 articles covering the Association were published and 161 radio broadcasts made.

The F.P.A.C. has worked with the colleges and the universities to help instruct several hundred midwives, doctors, social workers and nurses on how to work with the people's "felt needs"; family planning being one of the most important.

During 1965 two mobile clinics were used by the As-

sociation. Although the loops were provided free at these clinics, not many people went to them because the clinics were too conspicuous, information as to when and where they would be located was not always available and the people did not like the cramped space. From the administrative standpoint, the clinics are too costly and often can't get into the areas where there are no doctors. The Taiwan IUCD program has primarily used a mobile doctor inserting loops at health station clinics or clinics of private doctors. Another plan is going to be developed and tested. This will be a compact kit which will allow the doctor to insert the loop in the home. This will avoid any problem of embarrassing a woman at the doctor's office and should narrow the gap between the large number of women who intend to practice family planning and the small proportion who actually do.

VIII. IUCD SUPPLY

One rule of thumb regarding supply of IUCD devices is first to order at least three times the number expected to be inserted during the first year. The reasons for this are threefold:

1. The devices are cheaply priced when purchased in quantity;
2. It is better to have more IUCD's on hand than to lose ready acceptors because of not having IUCD's; and
3. Many IUCD's at the initial stages of a program will probably be lost when distributed to doctors, fieldworkers, etc., perhaps partially because they are a "new" thing.

Both Taiwan and Korea suffered "loop gaps" during their early programs. Since these gaps, there has been considerable emphasis on establishing and maintaining a channel of supply for the IUCD device as well as inserters, instruments, medications, etc.

A. IUCD Device:

1. Moulds for loops were made in Taiwan. However, a better quality one can be made in the U. S. for a comparatively reasonable price. India, Pakistan, and Korea have manufactured their own loops to save money and to always have stock on hand. There must be a plastic factory able to do quality work. Furthermore, there is always a need to maintain the supply of plastic (Alathon

20), barium sulfate, and string. At present, a pre-blended mixture of Alathon and Barium sulfate will make work easier. Also, there are certain restrictions on manufacturing the loop in some countries. At present, one mould with four cavities is enough for a place such as Korea inserting over 200,000 loops during 1965.

2. **Loops** may be purchased in the U. S. at a reasonable price unthreaded in lots of 100,000. Thread and threading board are easily obtainable at little cost. The President of Hallmark Plastics in Buffalo, New York has been very helpful in manufacturing the Lippes loop on Taiwan.

3. **Inventory**—in Taiwan, a continuing inventory of 25,000 each of the 27.5 m.m. and the 30 m.m. loop is maintained at a central supply area of the MCHA. Each of the 22 county nurse supervisors maintains 1,000 on hand in order to meet the needs of physicians in her immediate area—approximately 400 loops each month were inserted on the average in each of the 22 counties during 1965.

B. Inserters:

The inserters used in Taiwan cost approximately US$-0.35 each for orders over 2,000. They are manufactured in Hong Kong and have a core of Teflon material, a plastic tubing, which is sent from U.S. to the manufacturer. These inserters are able to be boiled.

Non-boilable inserters with polyethelyne inner tubing are available from the same manufacturer at about US$0.18

each for orders of 2,000 or more. They are ordered from: Ekder Plastic Works, P. O. Box 5591, Kowloon, Hong Kong.

The difficulty with using inserters which cannot be boiled and which must be set in aqueous Zephran solution for 24 hours to sterilize is that a physician must always have just as many inserters on hand as he expects to put IUCD's in during that day.

C. Medical Instruments:

In Taiwan, OBGYN's generally have the necessary medical instruments associated with loop insertion. However, general practitioners usually do not have them so that those GP's trained in loop insertion have been provided with the following medical instruments which have been found useful. Specifications in lots of 100 each follow:

Instruments	US$ Unit Price (for order of 100 pieces) C. I. F. Keelung
Vaginal Speculum, Sakurai's medium chrome plated	2.60
Vaginal speculume, Cusco's medium, chrome plated	1.78
Uterine sound, silver tipped	1.65
Tenaculum forceps, Martin's one prong stainless steel	3.42
Uterine tissue forceps, no teeth, 23 c.m. long, stainless steel	1.47
Uterine scissors, Sim's, Curved, 20 c.m. long, Stainless steel	3.09
Total	14.00
US$14.00 cost per physician	

D. Medicines for Treating Side-effects:

During 1966, it was decided to provide medications for treating side-effects of IUCD acceptors. A special unit pack being provided to 200 selected township health stations includes the following:

600 Vitamin C tablets	(100 mg)
300 Vitamin K tablets	(5 mg)
300 Ergonovine tablets	(0.2 mg)
200 Estropan tablets	
150 Pyrabital tablets	(0.3 mg)
50 Buscopan tablets	(10 mg)
antibiotic (as yet unspecified)	

The quantities of each item in the unit packs reflect previous physician experience with follow-up medication needs. If these proportions are found adequate and are properly used by health stations, the provision of medications will be further extended.

* * * * *

Any questions from Governments regarding sources of supply and cost may be directed to Mr. Harry Levin, Distribution Consultant, the Population Council, 230 Park Avenue, New York 17, N. Y., U. S. A.

IX BUDGET

A. Showing The Need.

After the family planning organization was integrated into the Maternal and Child Health and Health Education Divisions of the Provincial Health Department and the voluntary Maternal and Child Health Association was formed for implementing the program, a request for funds was made.

Since Taiwan's population problem affects health, education, economic, agricultural and social development, it was not hard to show the benefits of having a family planning program. After the need was defined, the solution was outlined. Basically, this consisted of training private doctors to insert the loop and hiring field staff to refer women to the doctors.

B. The Per Capita Cost Is US$0.035 Per Year.

The amount requested was small compared to Pakistan with US$0.12 and India US$0.083. Korea also spends US$ 0.055 per capita, not including the Council grant. However, 40% of the Council contribution in Taiwan is for research and 30% of the local budget goes towards village health education and subsidies not directly related to family planning. The local per capita expenditure for the action program would actually be about US$0.0198. The main reason for the large difference between Taiwan and Pakistan

is that Taiwan has high literacy, good medical services, and does not pay the total cost of the contraceptives. If Taiwan expands its program staff, other services, and health education program, the amount needed could triple.

C. How The Budget Breaks Down.

The government estimates US$75,000 worth of time from the health station staff was spent on the program. during 1965 This time and cost of health station facilities were not budgeted for since they are covered by The Provincial Health Budget.

The following is the Taiwan budget, excluding certain related Council-sponsored activities, for 1965:

	CIECD/JCRR		The Population Council		
	Cost	Sub-Total/U.S.	Cost	Sub-Total	Total
A. Subsidies to MCH Program		55,600			55,600
B. Village Health Education Work (Village health nurses spending 1/2 their time on family planning earn US$45 a month)		62,500			62,500
C. Family Planning Education Program		103,000		62,100	165,100
1) Salaries for 256 workers at US$22.50 per month *13* months.	75,000				
2) Travel and per diem for 22 supervisors at US$2.50 a day for 20 days amonth, *12* months	13,200				
3) Inservice Training	2,500				
4) Family Planning Education Materials	2,500				
5) Record Forms, Coupon etc.	2,300				
6) Bicycles, uniforms, flip charts, fliers	7,500				
7) U.S. dollar requirements of Family Planning materials					
8) Movie "Family Planning Taiwan"					
9) Health Journal					
10) Training Workers					
11) Subsides to County Health directors and nurse supervisors					
12) Research, staff, contingencies					
D. Providing the IUCD Service		82,400		4,900	87,300
1) Loop and Inserters sponsored by Red Cross	5,000				
2) US$0.75 subsidies for 100,000 women	75,000				
3) MCHA overhead - postage, remittance fee, stationery, travel and per diem of MCHA staff	2,400				
4) Training Doctors			4,900		
E. Evaluation and Research: The Population Study Center.		25,000		45,000	70,000
Evaluation			25,000		
IUCD Research			20,000		
Grand Totals		328,500		112,000	440,500

D. The 1965 cost can be summarized as follows:

1) It costs US$16.00 to train a doctor in loop insertion. To supply him with 200 loops and 10 inserters costs $8.00. Locally produced loops cost US$0.0225 each and Teflon Hong Kong inserters $0.35 each. The overhead to supervise the distribution of loops, inserters, record forms and payments was $4.28 per doctor during 1965.

2) To train a fieldworker costs more than for a physician -- US$66.00. The cost per case directly referred by a full-time PPH family planning worker was US$3.14 based on coupons returned, whereas the village health education nurses cost the program US$13.65 per case attributed to them. However, in the latter case, the workers spent only half-time on family planning. The amount appropriated for health education materials was far too small.

3) The total cost per case referred was $4.14. To evaluate the results, each case costs about US$0.25.

X. EVALUATION

The Taiwan Population Studies Center (TPSC) under the actual supervision of Dr. L. P. Chow has been responsible for the evaluation of the family planning program. Drs. Ronald Freedman and John Takeshita of the University of Michigan have provided technical assistance on many phases of program evaluation with main emphasis on the fertility survey which was conducted during 1965. The results of the survey will be available during mid-1966. Dr. and Mrs. C. Tietze have assisted with the IUCD follow-up studies. Mr. C. H. Chen, Research Associate, has assisted in carry out many phases of evaluation.

Three main areas are covered here:

A. The structure of the Taiwan evaluation system itself;

B. Some factors found to be affecting the Taiwan program performance during 1964 and 1965 which may be of interest to administrators engaged in or contemplating similar IUD programs; and

C. The medical follow-up and continuous use study.

Certain of the procedures of the evaluation system are described elsewhere in this publication and page references are given for further referrals. More "action program" related studies are discussed in Chapter XI, page 99.

A. T.P.S.C. EVALUATION:

The evaluation procedures may be divided into 3 stages:

immediate, intermediate, and long term.

1. Evaluation of immediate effects:

a. Analysis of return coupons.

b. Analysis of fieldworker accomplishment

2. Intermediate Evaluation:

a. Collection of basic data

b. Fertility survey

c. IUCD follow-up survey

d. Sample survey of clinical records

e. Follow-up interview of coupon holders

3. Long term evaluation:

Effect of national program on fertility rates.

1. Evaluation of Immediate Effects

a) Analysis of Returned Coupons.

The Taiwan family planning program has been able to know just how many loops were inserted during a month by the 10th day following that month. In addition, such pertinent variables as source of referral, age, number of living children, education, etc., of acceptors are able to be tabulated as quickly. The reason for this efficiency is a unique system relying for its effectiveness on the use of the "coupon." A sample, with brief explanation of its use, as well as the coding system used with it are contained in the Appendix

(c.f. page 120).

b) Analysis of Fieldworker Accomplishment:

The fieldworkers are evaluated primarily in relation to fulfilling targets (c.f. Chapter IV).

An individual record form is kept at the Taiwan Population Studies Center to record personnel status and monthly loop acceptance accomplishment. Supervisors at the county/city level maintain records which are supposed to be reviewed regularly. In addition, each worker is rated according to a monthly work achievement index and the rating published in a list which the workers receive.

Although 1965 saw the development of the worker achievement index and a questionnaire to determine relations of work habits to performance (see Appendix, page 116), little else was done in the way of retrospective review of work records. It is hoped that action will be taken on this during 1966. In addition, ways of determining a worker's effectiveness in terms of continuing usage of IUCD cases she refers will be explored.

2. Intermediate Evaluation

a) Collection and Analysis of Basic Data:

In order to measure change, a program base-line has to be established. Data for this purpose is continually collected, including: demographic information on population, registered number of births, and health information.

b) Fertility Survey:

The first of a projected series of fertility surveys was conducted during late 1965. Its purpose is to determine the impact of the family planning program on the knowledge, attitude, and practice of family planning on the population with regards to the IUCD and other methods in common practice such as the Ota Ring, abortion, and sterilization. About 4,000 women drawn from the 1.6 million women of childbearing age compose the sample.

Previously, a more limited survey took place in 1962 in Taichung City and another in 82 townships in 1964. Both indicated that women were ready to accept family planning and that about one-fourth of the women were interested in the loop.

The survey was being analyzed at the time of the preparation of this publication. It is expected that results will be available by mid 1966.

Some preliminary results are as follows:

i. At the time of the survey in Taiwan about 8.8% of the women (130,000 of the 1,500,000 married women 20-44) had accepted the loop. From the survey of 3,719 women, 5% were wearing the loop. This seems consistent with first segment analysis of the IUCD medical follow-up study after 12 months of exposure. Almost all the loops were No. I however -- since mid-1965, this smaller 25 m.m. loop has been removed from the program due to its high pregnancy rate.

If applicable to Taiwan as a whole, then only about 77,000 of the 138,000 were in place as of the end of October 1965. However, most were small loops as stated and many inserted during the early stages of the program when there was not as much confidence on the part of acceptors or physicians inserting

ii. After discontinuation of the loop, 61% did not use an alternative method at the time of follow-up. The others used traditional methods (22%) and the Ota Ring (7%).

iii. 9.79% had at least one induced abortion.

iv. Overall, some 85% of the women surveyed knew of a method; and about 47% knew of the loop; 21% were practicing a method (5% the loop).

v. At the time of the survey there were more women wearing the Ota Ring (6.29%) than the loop (5.07%). 4.9% of the women had a tubal ligation and 0.5% of the men had a vasectomy. Of the 5.43% of the couples using traditional methods, 2.89% used rhythm, 1.16%, condoms, 0.89% foam tablets, 0.49% a combination of these.

c) IUCD Follow-up Survey:

During late 1965 a sample of 2,000 acceptors was studied to determine rates of removal, expulsion, accidental pregnancy, frequency and type of side-effects, as well as degree of satisfaction, among IUCD users. Results are being analyzed and will be available in mid 1966.

It is hoped that the IUCD follow-up and the fertility survey combined will indicate:

i. characteristics of acceptors and non-acceptors;

ii. knowledge, attitude, and practice of both; and

iii. difference in reproductive behavior and change in fertility after IUCD acceptance.

d) Sample Survey of Clinical Records:

OBG doctor's clinical records are being followed on a sampling basis. Information is coded on survey forms for analysis.

General indications are that most satisfied users do not come back for the regular check-up by the doctors, although instructed by the doctor to do so.

e) Follow-up Interview of Coupon-Holder:

Samples of women who have asked for and been given coupons but have not taken action to insert the loop have been periodically followed up to determine why they have not had an IUCD inserted.

The overall objective has been to lower the barriers between the large percentage of women who approve of family planning and the small percentage of these women who actually go to the doctors. One of the best ways to improve the administrative procedure of the program and educational approach of the worker has been to go to these women who accepted the coupon and intended to go to the doctors for the loops, and find out why they did not return. About

10% of the women will give excuses or never really intended to get a loop. However, most of the women have definite problems or reasons for not going.

For these women, proper education was not provided or the program did not make it possible for them to respond. Based on the woman's explanation of her problem, the program has made specific improvements in the field workers' educational approach. The administration of the program can be altered so that such factors as distance, cost, community support, and supplies are not barriers to acceptance.

3. Long—Term Evaluation

Taiwan is fortunate in having a uniquely high quality registration system of births, deaths, and other related demographic data. The quality compares favorably with that of most industrialized countries, although some under-registration of births and neo-natal deaths still exists.

The T.P.S.C. continues to attempt to correlate the number of IUCD acceptors with the decline in fertility in Taiwan.

The crude birth and general and total fertility rates have continued to decline in the past few years. The number of live births during 1965 was less than 1964. However, it is too early in the IUCD program to absolutely relate such declines to the family planning program.

B. SOME PROGRAM GUIDE LINES DERIVED FROM THE EVALUATION PROCESS:

1. Improving The Contraceptive Service:

a) Because the 25 m.m. loop had a high rate of pregnancies, expulsion, and removal during 1965, it is no longer used in the program. The emphasis is now on the 30 m.m. and 27.5 m.m. loops. The results after 2 years in Taichung with the 25 m.m. loop show about a 50% continuous use rate.

b) The sex of the doctor inserting loops has not made much difference. During 1965 about 15% more women went to female doctors than male doctors. Although the average number going to a female OBYN is higher, it is not significantly so.

c) As an average, over 5 months, 696 loops were inserted per month by the mobile health bureau doctor going to the health station. In townships without doctors, the mobile doctors have been helpful. The mobile Family Planning Association clinic during this same period was responsible for inserting 374 loops per month. In the latter case the loops were inserted free. There has been no investment in mobile vans in Taiwan by the family planning program. The mobile doctor, because of existing good transport, seems more effective.

d) There is a great need to find ways to increase continuous usage among acceptors. A study will be conducted to find out if treating side effects increases continuous use.

Most of the medicines which will be purchased for treating complaints will be used to suppress bleeding, and regulate menses. It has been found that the most frequent reason for removal is the loss of blood. Any loss of blood, other than what is expected during menstruation, is feared by the Chinese women.

Other factors which may be relevant to use-effectiveness and continuous use will be studied such as the cutting of the strings, doctor and patient knowledge of the method, prior experience, uterus size, loop models, the regular checking of loop string, and instructions given to women both by fieldworkers and inserting physician.

e) It was estimated from the Taichung survey (1962-63) and one conducted at random on the island as a whole (1964) that 15% of all married couples of childbearing age were practicing contraception. Of these about one-third had been sterilized. The ratio of tubal ligations to vasectomies was 13 to 1. About another 38.3% of couples practicing had IUCD's and 32.5% used traditional methods, mostly condoms, rhythm, and foam tablets. The oral pills were purchased by 0.7% of the couples. The 1965 Island-wide fertility survey results will give a better picture of these factors in relation to loop usage.

Emphasis on providing sterilization and the Ota Ring at provincial level hospitals in Taiwan is being stressed during 1966.

f) Although the program relies heavily upon insertions made by the private practitioner, 26% of the loops inserted in Taiwan were done by others:

	No.	%
Private OBGYNS	73,055	73.6
Provincial Hospitals	3,479	3.5
County/City Hospitals	1,375	1.4
Health Bureaus	8,200	8.3
Health Stations	4,483	4.5
Military Hospitals	4,212	4.2
Family Planning Association	3,112	3.1
Others	1,337	1.4
Total	99,253	100.0%

2. Improving Referral Techniques:

a) Analysis of worker's records and a recent questionnaire indicates that there is a direct relationship between a worker's results and her age. The workers who are 25 years or older seem on the average to produce more cases than the younger workers. Most of the older workers are married, have a few children, and are about the same age as the women responding for the loop.

b) The modal acceptor has been found to be a 30-34 year old woman having three to four children. From the experience in the Taichung Study and early stages of the program, it was decided to have fieldworkers first visit women with three children, including at least one son. Because Taiwan has an excellent household and birth registration system, the finding of these high-parity women is not difficult.

Furthermore, it was learned during 1965 from analysis of data that many respondents had come for the loop soon after childbrith. As a result of this finding, workers began to check birth registrations and follow-up women shortly after the birth of a third, fourth, etc. child. Mailings began to all having a child.

c) In a survey of a sample of loop acceptors conducted in 1964 it was discovered that the interval between the time a woman accepted a loop coupon and the time she went to the doctor was as follows: one month—54.4%; 2 months—18%; three months—15.8%; and longer than three months 11.8%. As a result of this finding, the workers were instructed to make their follow-up visits to coupon holders 3 months after the coupon was issued.

d) 1966 IUCD Follow-up study high removal rates show the need for more health education.

C. MEDICAL FOLLOW-UP AND CONTINUOUS USE STUDY

1. The IUD vs. Traditional Method Use in Taichung:

A six-month follow-up of acceptors of "traditional" methods in Taichung (Feb.-Oct., 1963) has recently been outinled by Drs. Freedman and Takeshita at the University of Michigan Population studies Center.

The following table presents the contraceptive status at six months of these 921 acceptors by percentage distribution:

Contraceptive Status at six-month Follow-up

Still using the method, regular use	48.3
Still using the method, irregular use	4.6
Changed to the IUCD	10.9
Changed to the Ota Ring	1.5
Was sterilized	1.2
Discontinued, unintended pregnancy	5.2
Discontinued, planned pregnancy	2.5
Discontinued, for other reasons	8.1
Never used this method, although "accepted"	2.0
No information, no follow-up attempted	5.2
No information, other reasons	11.5
	100.0

For the first 6 months of observation, the IUCD's showed distinct advantages over the traditional methods, both in terms of number of women staying with the method and protection from unwanted pregnancy:

	Traditional	**IUCD***
Percentage continuing use after six months	53-64**	71-80**
Percentage with unintended pregnancy during first six months	5- 6	1- 2
Cumulative pregnancy rate per 100 woman-years during first six months (all pregnancies)	19.1	3.4

** Percentages based on exclusion of those with "no information" received during follow-up—a total of 767 cases.

* Types of IUCD's inserted during this period were: 3 large (5A) spirals, 536 small (5J) spirals, 1,695 25 m.m. (I) loops, 226 silkworm guts—a total of 2,460 cases.

2. Taichung IUCD Medical Follow-up Study:

The IUCD medical follow-up study was expanded by some 2,000 cases during late 1965 in order to gather a more satisfactory sample of users of the 30 and 27.5 m.m. loops users, who now form the largest proportion of loop acceptors.

The following tables represent a tabulation of the various devices according to voluntary removal, natural expulsion, pregnancy, and retention rates.

Unfortunately, it is difficult to draw generalizations regarding the present overall program, simply because.

a) The sample of 27.5 and 30 m.m. loops is insufficient to draw conclusions from; and

b) The early experience with the loop reflected a high rate of removals due to to a lack of physician experience with and confidence in the IUCD as a method.

However, a larger sample of the 27.5 m.m. (IV), 30 m.m. (III) and 31 m.m. (II) loop acceptors have been included in the study as of October 1965 and indications are that the overall retention rate will be considerably higher, reflecting the confidence and experience of the users as well as inserting physicians. Because of the poor retention rates and high pregnancy rates of the small 25 m.m. loop wearers, the device was dropped from the program as of the third quarter of 1965. The coils and silk guts have not been used since the initial stages of the program.

Voluntary Removal Rates

	6 mos.	12 mos.	18 mos.
25 m.m. Loop (I) (4,422 cases)	11.1	19.9	28.7
31 m.m. Loop (II) 327 cases)	11.4	22.3	—
30 m.m. Loop (III) (355 cases)	8.1	42.7	—
27.5 m.m. Loop (IV) (245 cases)	11.0	28.0	—
Coil 5+5J (1,107 cases)	18.3	26.6	38.4
Silk Gut (287 cases)	13.1	20.4	24.0

Expulsion Rate

25 m.m. Loop (I)	10.0	14.8	17.4
31 m.m. Loop (II)	4.6	9.4	—
30 m.m. Loop (III)	10.0	16.0	—
27.5 m.m. Loop (IV)	7.5	13.4	—
Coil 5+5J	12.4	18.2	38.4
Silk Gut	17.6	20.7	24.0

Pregnancy Rate

25 m.m. Loop (I)	3.1	6.9	10.8
31 m.m. Loop (II)	1.1	2.4	—
30 m.m. Loop (III)	1.0	1.0	—
27.5 m.m. Loop (IV)	2.4	2.4	—
Coil 5+5J	2.1	3.7	5.8
Silk Gut	0.9	2.4	3.1

Retention Rate

25 m.m. Loop (I)	75.8	58.4	43.1
31 m.m. Loop (II)	82.9	65.9	—
30 m.m. Loop (III)	80.9	40.3	—
27.5 m.m. Loop (IV)	79.1	56.2	—
Coil 5+5J	67.2	49.5	34.2
Silk Gut	68.4	56.5	50.8

XI. DEMONSTRATION "ACTION" STUDIES

In addition to the evaluation function described in the preceding chapter, the Taiwan Population Studies Center took on a number of other studies. These are called "action" studies. Their main purpose is to help find new ways to get more loops in for a longer time at the least cost.

A. General Findings

1. Some general findings during 1964 and 1965 which have served as program guidelines are:
   a) General practitioners in Taiwan are capable of inserting the loop. However, their caseloads of women of childbearing age do not bring in as many physician referrals as the OBGYN specialists.
   b) Group meetings are a good way of gaining loop acceptors but much depends on the skill of a worker in conducting these. Most workers seem to pursue a course of combining both group and home visits.
   c) Paying people in a community to refer IUCD cases on a fixed payment per referral can bring some results However, these have yet to be shown to be substantial.

      An incentive referral pilot in 10 townships began in late 1965 which relied more on community organization support than payment and has been doing well.
   d) Free offers bring more people in quickly but not

enough is known as to their effect on the areas selected to clearly establish its value beyond this.

e. The mail is an effective supply channel for oral pills.

2. In addition to these general guidelines, a large number of specific program improvements and planned action have been the result of the various less formal action-oriented demonstration studies conducted during 1964 and 1965.

These include:

a) **Coupon Follow-up:** Specific guidelines for improving the administrative and education phases of the program have been provided by a follow-up of coupon holders. About 10 to 15% of the women receiving the coupons never intended to go to the doctors. However, most of the women had definite problems or reasons for not going. The program did not make it possible for these women to respond or proper information was not provided. Some of the barriers to acceptance have been: the woman was waiting for her period; the women heard that the loop would harm her health or she would lose weight; she was lactating; afraid the loop would case cancer or ectopic pregnancy; or believed she was being experimented on. Only about 11% of the coupons are returned after the women has held the coupon for longer than 3 months. For this reason, the worker makes the follow-up visit during the third month.

b) **Specific Appointment:** Providing a specific appointment for the women with the doctors has been one of the most effective findings. Workers now give each wo-

man a coupon with a specific time and date she is to go to the doctor for a loop. The woman is told the doctor will be expecting her. This effort helps commit the woman to her intentions.

c) **Using Loop Wearers:** When women go to the doctor's office for a loop they are given fliers so that they can inform other women about the loop and where it can be obtained. In addition, there is a plan for the respondent to list several women whom she knows may be potentially interested in having an IUCD. The field staff will make follow-up visits to these women. At present, the workers use women satisfied with the loop in three ways. They have them talk to women who want the loop but need reassurance that it is safe and reliable; they give favorable testimony at group meetings, and they hand out fliers. For more active participation, providing these women a small payment for each case they refer has been helpful and may be expanded.

d) **Improving the Quality and Quantity of Worker's Performance:** Besides visiting high parity women, mothers with a recent birth, conducting group meetings and getting volunteers to hand out fliers, the workers follow-up coupon holders and loop acceptors. The best field staff are provided bonuses and poor workers not meeting their minimum target (10 loop cases a month) are replaced. A worker's manual and supervisory instructions have recently been revised. Health education materials are being updated. In rural townships, the workers are being provided with funds to bring the wo-

men to the doctors and for transport to more remote areas. Targets based on the *retention* of the IUCD are being considered for the future.

e) **Post-partum Program.** Most loop acceptors have had a recent pregnancy. Fliers are being mailed to over 400,000 women who have just delivered a baby. The workers will be visiting the women who have recently had their third, fourth, fifth or sixth delivery. All doctors, midwives and persons delivering babies are requested to distribute fliers. In addition, the island's 1,700 midwives who deliver 34% of the births will be given a special orientation session on family planning.

f) **Improving the Contraceptive Service:** A major emphasis is being placed on treating side effects in order to protect the health of the acceptors and increase continuous use of the IUCD. The doctors are given reorientation training which covers treating side effects, the latest developments in IUCD research, and progress of the national family planning program. This information is also sent to all doctors in the form of a newsletter with reprints from the medical and health journals.

g) In addition, the various formal and informal studies have pointed out the need of taking further action in the future in many program areas.: More health station doctors will be trained during 1966. Emphasis is being placed on the larger loop sizes. Oral pills and male and female sterilization will be provided on a pilot project basis. More mobile doctors will be used to insert loops at the health stations in remote areas. The health

education aspect of the program will be emphasized to a much greater extent. More study of ways of increasing continuous usage will be undertaken: follow-up visits to acceptors by workers, treating side effects, cutting of the IUCD strings and feeling the strings by the patient. Efforts will be made to discover if doctors' or patients' attitude to, knowledge of, and prior experience with the IUCD affects continuous use. Loop size, the size of uterus, and loop modulus will be studied in order to measure the relationship of these factors to use-effectiveness.

B. STUDIES

A selection of studies have been selected for presentation for those who wish to follow them in more detail. They include:

1. **Free Offer For a Limited Time**
2. **The Use of General Practitioner and Incentive Referral**
3. **Mail Distribution of Oral Pills**
4. **Group Meetings as IUCD Health Education**
5. **PPH Worker Procedure**

1. Free Offer For A Limited Time:

In Taiwan, about one of four married women 20 to 44 have accepted a coupon to go to a doctor for an IUCD (The Lippes Loop has been exclusively used on Taiwan.) However, in most areas where the loop has been offered for a year, only 10% of the married women in the childbearing age have responded. To assist the women in making a decision

to respond, contraceptives were provided free for a limited time.

The Pilot Project. Two rural townships with a combined population of 50,016 were chosen for the pilot study. The Lippes Loop was provided at the two local health stations by a doctor from the health bureau 2 afternoons a week for the duration of the free offer project which lasted 3 months. The loop could also be obtained from eight doctors located in a city 25 kilometers from the townships. In addition, condoms and foam tables could be obtained from the local midwives, hair dressers, barbershops, village chiefs, farmers association, drugstores, herbolists, private general practitioners and at the health stations in each of the two townships.

Village health nurses who usually spend one-half their time on family planning were used for the study. The six fieldworkers made home visits and distributed fliers to 93% of the 8,080 households in the 2 townships in six weeks. The flier contained information about the loop, condoms, and foam tablets, how to use them and where they could be obtained. Attached to the flier was a coupon which stated: "You can receive one of these contraceptives *absolutely free* if you go now before this special offer expires." Stamped on the coupon by the fieldworker was the date the coupon expired—one month from the date of the home visit. After the free offer expired, a patient would have to pay US$0.75 for a loop, $0.22 for a tube of 16 foam tablets, and $0.36 for a dozen condoms.

During the first three months, there were 1,140 respondents. Excluding the small proportion of male respondents,

this comprised 20% of the married women 20 to 39. Although there were very few acceptances after the free offer, the proportion of acceptors to women in the childbearing age was higher than in any of the other 359 townships on the Island at the end of the project. It is believed the response was not due to the saving provided by the free offer but the limited time in which women had to respond.

The loop acceptors comprised 61% of the respondents. Most of the women (90%) chose to go to the health stations in the townships rather than travel 25 kilometers by bus to go to the cities. Distance was not a barrier within the townships; the furthest distance being seven kilometers.

A follow-up study of loop acceptors was conducted 10 months after the beginning of the project. With about nine women months of exposure the continuous use was 89.8%. There were 3 expulsions, 5.4 removals and 1.8 pregnancies pergnancies per 100 women-years of exposure. Considering the length of exposure and that only Loop I (25 m.m.) was used, the continuous use was high. Part of the reason may be due to the fact that the doctor inserting the most loops was not around to remove them after 3 months. Only 35% of the removals were done by the doctors inserting the loop. Further studies are being conducted to find out if the retention rate is higher for loops inserted by mobile doctors than stationary doctors.

Of the 444 acceptors of condoms and foam tablets, 34% were continuously using the method after 10 months. Of, the discontinued users, 32% found the methods, "too troublesome", 18% had no confidence in the method's effective-

ness, 18% became pregnant because the method was not used properly or consistently, 10% said they couldn't afford the supplies, 8% said the spouse objected to the method and the others gave irrelevant reasons or excuses.

The condom was preferred by 51.5% of the respondents. Because the supply depots are frequented most often by females, the wives obtained the supplies in 74% of the cases. The husband tended to go to male distributors and wives to the female distributors. The supply depots in order of preference were: the health stations (36.7%), midwives (17.2%), farmers' association (11.7%), hair dressers (11.3%), village chiefs (9.2%); and the remaining 13.9% went to the drugstores and general practitioners. The health station midwives went out to collect coupons but the general practitioners did not support the project. This is the main reason for the difference in response.

Usually the mobile village health nurses who are paid twice as much as the full-time family planning workers refer only one-fifth the number of cases. However, their effectiveness in this study can be attributed to the free offer for a limited time only and good supervision.

Expansion of the Loop Aspect:

The distribution of condoms and foam tablets was not expanded due to restrictive government policy. However, about 1 million fliers which contained information about the loop and where to get it were distributed in 1965 by about 3,500 volunteers in daily contact with people in the communities. In addition to the supply depots used in the study, the fliers were distributed by birth registration clerks,

door-to-door salesmen, women satisfied with the loop, by mail, and by doctors and midwives delivering babies.

In one study where the fliers were mailed to 20,000 women 20 to 44, one of 30 recipients responded when the loop was free. One of every 60 women when they had to pay the usual US$0.75, or half the cost of insertion, responded.

Beause most respondents come after they have at least three children, including one son, and at a time very close to their last birth, future mailing will be concentrated on these women. The occurrence of vital events is recorded at the township household registration office. It is from this office that the names and addresses are obtained.

The Taichung study has been well-documented in previous issues of The Population Council's *Family Planning Studies.* After 2 years, 14% of the women has obtained an IUCD. During 1964 the acceptances leveled off at about 150 cases a month. The free offer in Taichung was intended to be for the poor, but almost all the coupons issued by the worker stated the bearer could have the loop free. The free offer period, which began the last week in March 1965, was to last only 3 months. However, after 3 months the workers were told they could continue to offer the loops free. The free offer months were April, May, and June.

Free Offer Period

1965	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total Cases	140	141	195	377	529	481	282	197	180	239	243	305
% free	0%	0%	10%	62%	85.6%	76.9%	84%	68%	72%	86%	77%	84%

Later in 1965, 30 townships were chosen for the free

offer project. Unfortunately, the fieldstaff were not given proper training in how to refer cases and often doctors were not available to insert the loop The 30 townships were chosen because the returns were low and the workers were poor. As a result, workers only referred two to three times as many cases during the free offer as they had previously. The free offer months are September, October, and November

		June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Free townships	Acceptors	695	570	668	1,228	1,754	1,415	585
	Index	100	82	96	177	252	204	84
Other areas	Acceptors	7,930	6,382	5.716	6,207	6,235	5,739	8,892*
	Index	100	81	72	78	79	72	83
Province	Acceptors	8,625	6,952	6,384	7,435	7,989	7,154	9,477
	Index	100	81	74	86	93	83	82

* Because 2,342 of these loops were produced as a result of the free offer in another 33 townships the index has been adjusted.

Another 33 townships were selected and the free offer began in December 1965. During the first month of the free offer projects 2,342 women responded from the 33 townships and 1,984 the second month. The response from the stationary workers jumped from 16 to 54 and 42.8 per month and for mobile vhen's from 4 cases (half-time) to 24 and 24.2 per worker (full time) per month. The fieldworkers were asked to have all village leaders refer cases, as well as registration clerks, midwives, doctors, beauticians, farmers

association, teachers groups, health personnel and satisfied loop wearers. In addition, the workers were given posters explaining about the free offer.

In the future, the free offer may not be done on a township basis but will be expanded for women with a recent birth and women holding the coupon for longer than 3 months. It may be that having the free offer in one of every four townships tends to slow PPH workers down since they tend to wait until the offer reaches them before they give their maximum effort. In addition, it may affect township response in surrounding areas where NT$0.75 must be paid.

2. Using General Practitioners To Insert The Loop And Paying a Finder's Fee For Each Case Referred

In Taiwan there are no obstetricians in two-thirds of the island's townships. It was felt distance to the specialist has been a barrier to a large number of potential respondents. Although the Taiwan program pays the doctors on a per case basis, the field staff draw their monthly salaries whether or not women are referred. A project was developed in July 1964 to find out if it would be less expensive to pay people in the community on a per case basis rather than workers drawing a fixed salary.

The Pilot Project:

A township with 45,209 population was chosen. There were 6,932 households and 4,515 women 20 to 39. The local general practitioner was given a two-day training in loop insertion. At about the same time the Health Station Director called a meeting of people in daily contact with

the community. They were offered US$0.25 for each case referred.

After 16 months, 808 women had accepted an IUCD or 17.8% of women 20 to 39. The cases were referred by the travelling salesmen (32.5%); the general practitioner (24.7%); loop cases (16.5%); trachoma project workers (9.3%); a village chief and clerk (6.0%); health station nurses (4.4%); a private midwive (1.1%); and others (5.5%). After 6 months, 30 people were referring cases. Although the results were about the same as could be expected from a good fieldworker, the cost of US$0.25 per case was about one-tenth the usual cost to make a referral by the full time family planning fieldworker.

In Taiwan there are a large number of people who go from door to door selling medicines, cloth, soft drinks, ice cream and cosmetics. Three saleswomen were contacted because of their good sales ability and offered a small commission for each case referred. They were very effective in referring cases.

The general practitioner was able to refer a large number of cases from his caseload. Satisfied loop wearers were also influential in referring cases. The midwife was not very cooperative.

Expansion of the Project:

Because no problems occurred as a result of using the general practitioner, additional general practitioners were selected and trained in loop insertion. These doctors came from areas where there were no obstetricans. They were given three days training at the local health bureaus.

In order that each doctor could practice inserting 10 loops, women were notified they could have a free loop if they went to the hospitals during the training session.

The first expansion of the finder's fee project was in three military dependent villages. The acceptance rate after 3 months was 6.2% of the women 20 to 39.

Beginning November 1965, an additional 10 townships were selected. At the end of the first month the volunteers referred an average of 9 cases per township and 10 cases after the second month. An additional 15 cases were referred as an average from these townships, mainly by the health station personnel and doctors inserting the loop. The program will continue in order to determine further results.

In the future a project is being designed to find out if free insertion will increase returns. In addition, there are plans to make more use of women who have gone to the doctors for a loop and to strengthen community organization support.

A further effort will be made to bring the midwives more actively into the national program. First, they will be invited to attend an orientation seminar on family planning. Second, they will be provided payment for each case they refer.

3. Mail Order Distribution of Oral Pills

During the Taichung study only 2% of all respondents chose the oral pills. The cost was US$0.75 a cycle or about one-half the retail cost at the time. During 1964, only enough pills for 10,000 women continuously using them were

sold on the local market in Taiwan. A project was designed in March 1965 to find out if the pills provided at a low cost could be distributed by mail.

Pilot Project:

A two column inch advertisement was placed in a newspaper on April 22, 1965. The newspaper has a circulation of 140,000. The advertisement ran for 1 day. The content explained that a limited supply of oral pills was available at US$0.50 a cycle. Payment could be made by money order or postage stamps.

In three weeks there were 626 requests for the pills. Because of the limited stock only 531 cases were registered and a note of apology was sent to there women whose requests were rejected. A single order was limited to a three month supply.

A self-administered questionnaire was used to determine demographic facts, reproductive history, attitude to, knowledge about, and practice of family planning. The pill accepters had a much higher education than the average women. Since 70% of the women wanted more children, most women wanted the pill for spacing purposes. About one third of the women had experienced one induced abortion and 76.4% had previously used contraceptives. In contrast to the IUCD acceptors, the women accepting pills were younger, more educated, with fewer children, and interested in spacing, rather than stopping childbirth.

After 7 months another self-administered questionnaire discovered 80% of the acceptors were using the supplies at the time they received the questionnaire. At least 90% of

all acceptors had forgotten to take the pills one or more times during the 7 months.

Of the women discontinuing the pills, 38.5% did so because of side effects, 15.5% because they forgot the pill, 6.6% because they thought the pill too troublesome. 3.8% because of expense. The other reasons were irrelevant. Of all acceptors, 37.1% did not complation of discomfort whin 58.4% had some discomfort. Dizziness, nausea, weight gain and abnormal menstruation were among the major complaints. Almost all the women took the pill before going to bed. None of the women became pregnant while taking the pill, but 12 became pregnant because they forgot to take the pills regularly. Although 80% of the women liked receiving the pills by mail, 72% said they would go to the drug stores to purchase their supplies if they could receive them at the same cost. About 45% of all respondents had been purchasing the pills at the drug stores previous to the offer.

Plans for the Future:

During 1966 the pill will be provided on a limited scale for women who have discontinued the IUCD. Part of this project will be implemented in Taichung city. In the future, any pills distributed by mail will have more medical supervision. The women also will be told where to go to obtain treatments for side effects.

4. Group Meetings As IUCD Health Education:

In Taiwan about 16 to 24 households form an administrative unit called a lin and 20 to 30 lins form a li. The field staff are instructed to make home visits and to bring

the high parity married women in the lin together for group meetings. A study was conducted to discover what the difference in response would be from an area where all lins had group meetings and in another area where only one half the lins had group meetings.

Pilot Project:

Two townships with a combined population of 61,324 were chosen for the project. There were 10,138 households, averaging about 6 persons per household. There were 424 lins and 37 lis. The two townships form a rough pyramid with the small urban township on the top and the large rural one on the bottom. This pyramid was divided down the middle. On one side, a lin meeting was conducted in every other lin; and on the other side all lins had meetings.

The mobile village health nurses were chosen to execute the project. The lin leader was asked to gather the women together for the meetings. In addition, the worker visited all women in the lin with at least 3 children, including one son, to encourage them to attend the meeting. The lin leader opened the meetings by introducing the worker and providing a few words of support for family planning. The worker explained to the women that contraception is a natural part of married life and that many women like themselves are practicing contraception. The worker used flip charts and slides to explain the "why" of family planning and the contraceptives. Towards the end of the meeting, the worker tried to draw all the women into a discussion about the advantages of a small family and the use of contraceptives. All attendents at the meetings were given a

coupon for the loop. This was done to avoid embarrassing those women who wanted a loop but didn't want their friends to know about it. A before and after survey of 10% of the women in the project area was conducted to determine changes in knowledge, attitude and practice on family planning.

In three weeks six nurses completed the project by conducting 320 group meetings. Each worker held an average of 53.3 meetings or about 3 meetings per working day. At the end of six months, 381 women responded or 4.9% of the women 20 to 30. Only 18% more women responded from the area where all lins were treated. The project was contaminated by referrals (40%) from the local health station personnel who were not formally involved in the execution of the project. For this reason the treatment results were not significant. However, the impact of the group meeting on knowledge, attitude and practice of attendents and non attendents was significant.

Before the meetings began, 81.7% of the women surveyed approved of family planning and after six months 90.6%. During the 6 months there was little change in the desired number of children. Although the majority of women approved of family planning, only 46% of the women had knowledge of one or more contraceptives before the project began. Of the women attending, 96.3% remembered instructions on contraceptives, 34% remembered that there was an explanation of why family planning is beneficial and 20% remembered the physiology of reproduction. When these women told their friends, neighbors and relatives about the

meeting they told them about the contraceptives. Over 90% of the non-attendents who heard about the meeting learned about the contraceptive, predominately the loop. There was very little discussion on reasons for family planning and almost no discussion of the physiology of reproduction.

Expansion of the Project:

The project was expanded with the mobile village health nurses. The population was changed from the li (about 2,-000) to the township (about 30,000). Each township had about 240 lins and each team of 3 workers conducted about 50 lin meeting during 2 weeks of each month. The workers conducted meetings in one out of five lins in a township. During the first 2 months, lin meetings increased from 303, to 885 to 1,034, the attendence grew from 4,812 to 10,301 and 14,311, the loop cases doubled in some areas and tripled in others; but the supervision of this expansion was difficult and the workers lost enthusiasm for the new plan. As a result, the acceptances declined after 4 months.

5. Working Procedures of PPH Workers and IUCD Referrals:

Questionnaires have been sent to the field staff in order to determine what type of worker produces the most acceptances. The referrals per month represent an average during a 4 month period in 1965 when the loop acceptances hit a peak. A recent questionnaire may be found in the Appendix.

The Selection of Field Staff:

There is a more direct relationship between the type of worker selected and her accomplishment than between her

working procedures and her referrals.

Single girls referred 14 cases and married girls 21 cases as an average during the four months. The younger workers under 25 referred 15.6 cases and the older workers 21 cases per month. There was no relationship between the education and training of the worker and her results. However, of all the workers selected, those with midwifery education produced the most referrals.

The Working Procedures.

a) There was no direct relationship between the number of home visits and the workers accomplishment.

Vists per day	Average referral per month
4 to 5	19
6 to 7	17
8 to 9	17.5
10 to 11	17
12 to 13	16
14 to 15	18
16 to 17	21
18 and more	19

These figures indicate that response is more dependent on the effectiveness of the worker during the home visit than the total number of home visits made by the worker. Most of the workers do about 10 home visits a day. All the workers visit the women with at least 3 children, including one son, at first. The rural workers do not have to make as many home visits to obtain a response as the city workers. The average worker obtains a response every 6 to 10

home visits or nearly one case per working day. The best workers spend about 20 to 30 minutes during a home visit although there is no direct relationship between the time spent during a home visit and acceptances.

b) There is a more direct relationship between group meetings and accomplishment.

No. of group meetings per month	Average loop acceptances per worker
0	12.8
1	14.6
2	11.5
3	27.6 (based on few workers)
4	16.2
5—6	19
7—8	20
9—10	33 (based on few workers)

Most of the workers conduct between 5 and 6 group meeting a month spending about one hour per meeting. Those conducting fewer than these per month tend to be below the average of 18, about 15.7 per month.

c) There is a close relationship between what a worker believes she should be doing and her actual accomplishment.

No. of referrals which should be expected in one month	Actual referrals per worker
1—5	7
6—10	14.8
11—15	16.0
16—20	21.6

No. of referrals which should be expected in one month	Actual referrals per worker
20—25	25.1
25—30	22.6
30—35	28

d) The ideal worker from the questionnaire results is married, has 2 or 3 children, is over 25, and has some midwifery training. She visits the women with many children at first, making ten or more home visits a day, spending 20 to 30 minutes a visit. She conducts about five group meetings a month. Unfortunately, her most vital characteristics are not easily measured by a questionnaire: maturity, dedication, skill, and confidence; nor are the effects of her work: how long a woman keeps the loop in.

XII
APPENDIX

A. Taichung Study

1. Outline of the first year of the program in 1963:

Taichung City, an area both rural and urban, has a population of about 320,000 including about 36,000 married women 20 to 39 years old. The city as a whole was exposed to two aspects of the program—a distribution of family planning posters and a series of meetings with community leaders to inform them about the program, get their advice and enlist their support. The objective was to learn how much family planning could be achieved at how much cost in money, personnel and time.

Taichung City contains about 2,400 lins or neighborhood units, each with about 14 to 25 families. These lins were given various degress of family planning effort. In certain lins nothing was done, in other lins only family planning literature was mailed to the high parity and newly married. The rest of the lins were divided into areas where personal contact was made with husbands and wives.

These treatments were divided into three areas. Field workers gave home visits to 1/2, 1/3 and 1/5 of the households in the areas.

The program used the nine health stations in Taichung to supply the contraceptives and provide a location for loop insertion.

The respondents had a wide variety of methods from which to choose, all at moderate cost. The choice of me-

thods were: the intra-uterine device, condom, foam tablets, jelly and inserter, withdrawal, the oral pills, the diaphragm, and rhythm.

After 13 months the action program enlisted 5,292 acceptors, 4,007 of whom were women living in Taichung proper. In order to appreciate this figure we must realize that at any given time about 1/2 of the married women between 20 to 44 may not be prospective customers: women who are sterilized or believed sterile, who are satisfied with the present contraceptive methods they are using, or who are pregnant.

The impact of such a program was not felt immediately or at one time evenly. The program advanced fairly rapidly once word-of-month communication was generated by home visits and group meetings. After about four months, the program had gained a great deal of momentum.

The word-of-mouth communication channels and referrals by health station personnel proved to be very important means of informing a large number of people, in a short time, at little cost about the available family planning methods. 19% of all acceptors came from outside the city where there was no formal effort. 50% of the acceptors heard about the program without direct contact of field-workers inside Taichung City. During the first year of the program, 74% of the I.U.C.D. acceptors came without benefit of direct contact by field workers.

The density of effort in the three areas of Taichung City showed that approaching 1/5 of the lins was about as effec-

tive as approaching 1/3. Although reaching 1/2 showed a significant increase in the percentage of respondents, the costs were high and probably not justfied. The higher returns in the heavy density sector were almost completely from the neighborhoods where direct effort was made.

The mailings were ineffective but they were not directly keyed to the intra-uterine devices. Visiting the husband, as well as the wife, made little difference, probably because the most popular method appeals only to the wife. A large part of the success of the program can be attributed to the introduction of the loop. Intra-uterine contraception was not new for many women had heard of or were using a Japanese device called the Ota ring.

The impact of the program can be partly measured from the case records. When the program began, 16% of the married women 20 to 39 in Taichung were practicing contraception. This increased to 28%. A survey showed that before the program began, 14.2 of the women surveyed were pregnant and afterward only 11.4 of these women were pregnant—a decline of about 1/5. From the vital statistics recorded at the registration office, the birth rate in January and February, 1964 fell 17% from the figure for the preceding January and February, compared to a decline of 10% for all of Taiwan.

Dr. Bernard Berelson, Vice President of the Population Council, summarized the success of the program by saying:

"When interest in family planning is already widespred in a population of some literacy and considerable energy,

and given an effective means of contraception such as the I.U.C.D., and a supporting health network, then a deliberate effort can have a measurable impact on the birth rate within a year and do so without creating any administrative, policy, or political problems for the program leadership."

2. Taichung Study: 1964:

There was no special effort concentrated in Taichung during 1964 because the administrative staff was working on the island-wide program. There were very few traditional supply acceptors, and loop cases leveled out at about 150 a month. Including traditional supply acceptances there were 6,148 respondents or 17.7% of the women 20 to 39 in Taichung. A full 78% took the I.U.C.D. Most of these cases were referred by nine PPH workers in Taichung who spent about half of their time conducting a follow-up study of acceptors. The other half of their time they spend conducting lin meetings and home visits. Beginning April 1964 the workers were instructed to make home visits in lins where nothing was done or only mailings were sent. The health station personnel also continued to refer cases.

3. The "Second-Round" Program During 1965:

Because there were more loop acceptors for the PPH workers to follow-up they had less time to spend on the action program during most of 1965. However, they worked longer hours. Beginning in November 1965 they worked full-time on family planning. They spent only one third of

their time referring cases. Beginning in August 1965 they did follow-up visits to women who intended to respond during the first year of the project but didn't. A meeting was colled on March 29, 1965 to instruct the PPH workers that there would be a free offer for indigent women for the next 3 months. The health station personnel were called to a meeting in early April to inform them of the free offer for a limited time. 80 private midwives were to be offered US$0.25 for each case they referred but they were not drawn successfully into the program.

In addition to these changes, more private OBGYN's in Taichung were trained to insert the loop. Three clinic sessions at the nine health stations were added by employing 2 female OBGYN's inserting loops. In addition, when women returned for a post-partum check-up at the Taichung Hospital they were given information about the loop. Drs. Ronald Freedman and Jone Takeshita of Michigan University made some of these recommendations based on additional findings from the first-round Taichung Study.

Before the second round started, the loops returns were continuing about the same as during 1964. In January, 140 loops were inserted, the February returns were 141. When the program began at the end of March, the cases increased to 195 for that month.

Loop Acceptors by Sources of Referral From April 1965 to December 1965 in Taichung City

	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
PPH	173	220	190	132	103	86	133	135	232
H.S. Personnel	113	227	172	88	51	39	50	45	42
Private OBGYN's & others	63	45	81	47	38	52	34	59	31
VHEN's	22	15	29	11	3	2	2	2	—
Midwife	6	22	9	4	2	1	3	2	—
Total	377	529	481	282	197	180	239	243	305
% Free	62%	85.6%	76.9%	84%	68%	72%	86%	77%	84%

At the end of June, it was decided to continue the free offer 3 more months due to the extremely high returns. However, most of the women who were influenced by the free offer for a limited time came during the first 3 months and returns tapered off thereafter Since the workers decided who could receive the free offer, about 80% of all acceptors were given the loop free.

The VHEN's who were in Taichung used the same working procedures as the PPH workers in referring cases. Because of their lack of familiarity with the community, and other barriers, they were not very effective in obtaining results.

The health station staff in Taichung are more active in referring cases than on the Island as a whole. The referrals for private doctors are less than the Island as a whole because there are only 15 private doctors inserting. Loops are inserted at the health stations, mostly.

One reason for the increase in loop acceptances during October and November 1965 is that all PPH worker and health station personnel were called to a meeting in the early part of October to review past activities and ways of improving the program. It was decided that women did not have to be poor to receive a coupon stating they could get the loop free.

4. Third Round Program Plans for 1966:

Drs. Ronald Freedman and J. Robert Willson visited Taiwan during December 1965. Part of the discussion centered on additional Taichung Study findings which could aid the national program and additional efforts in Taichung City itself. Some of the recommendations which will be used in Taichung City during 1966 are the following:

a. Mailings will be sent to all women who go to the township registration clerk to register their births and workers will be told to copy names and addresses of these women and visit them first.

b. All women who have discontinued the I.U.C.D. will be encouraged to accept other methods. The oral pill will be available on a limited scale.

c. Part of the mass media program will be centered in Taichung.

d. Women in lins where there were no or few acceptance and women who intended to respond but didn't will be followed up by the fieldworkers.

The target for 1966 is to get 30% of the women in Taichung City continuously practicing contraception.

The Coupon Used for IUD Program

The following items will be filled out by the person who refers the case

Name	Age
Name, Chief of Household	No. Living Children M ( ) F ( )
Address	
Name of village	
Name of person referring case	
Type of person who referred PPH worker ( ) Practitioner ( ) VHEN ( ) Private Midwife ( ) Military Hospital ( ) Provincial Hospital ( ) Farmers' Association ( ) Health Bureau (Station) ( ) China Family Planning Association ( ) Others:	
Date of Issue	

The following items will be filled out by the doctor who inserts the device

Date of Insertion			
Type of Loop I ( )	II ( )	III ( )	IV ( )

Name of Clinic Name of Doctor

Address of Doctor

Area Representative

a) Do you want more children?

b) What was the contraceptive you last used?

c) When was your last childbirth?

(NT$ 30 will be paid by MCHA upon receipt of this coupon.)

Evaluation of the ongoing action program is made mainly by analysis of the coupons returned. The coupon entitles the holder to a 50 per cent discount on the cost of insertion, and is sent to the MCHA by the doctor to claim subsidies (NT$ 30 or US 75 cents per coupon).

B. The Coupon as Evaluation

1. Role of County Nurse Supervisor:

The coupon is divided into three parts. Part II is pictured. Part I is kept by the person referring the case, usually the family planning field worker, health station personnel, or doctor inserting the loop (since some doctors make their own referrals from their regular patients). It gives the name and address of the case for follow-up purposes.

Parts II and III are given out by the worker or health station personnel to the women they are referring to the doctors for the loop. The woman then takes the coupon to the doctor. At the end of every month someone from the County Health Bureau, usually the County Nurse Supervisor, goes to the doctors in the county who have been recommended and trained in loop insertion and collects Part II. These are assembled and then sent by the nurse by registered mail to the Maternal and Child Health Association (MCHA). The M. C. H. A. then gives the payment of US$ 0.75 for each loop inserted to the county nurse supervisor who distributes it, along with loops, inserters, and record forms.

Part III is kept by the doctor as a record of cases so that he will know how much he is to be paid.

The County Nurse Supervisor then sends in Part II to the Population Studies Center, not later than the 7th of the next month. Ten days afthe each month, the total number

of insertions is known, who referred the cases and from where.

Part II is recorded on a marginal punch card. Such information as age, number of children, and their sex, education, location of the respondent, marital status, and who referred the case is punched on the card. In addition, the number of cases referred per worker is recorded on an evaluation sheet. This sheet gives for each township and county the number of cases referred by the worker, and what percentage of the target has been reached.

2. The Taiwan Population Studies Center:

The coding system of the acceptor Coupon until 1965 was based on the use of the McBee marginal punch card which can be readily hand tabulated. Each coupon is coded according to a system wherein a punched number or numbers represent a certain category (e.g., the No. 1 may include women in the age group 30-34). For cases where there are a large number of categories (such as the name of a county of residence) more than one hole can be punched (e.g., numbers 7 and 2 would indicate category 9). In such fashion, variables as township location, level of education, age, and number of living children are quickly sorted into the number of acceptors which fall into each category. If the number of acceptors aged 30-34 are wished, the spindle (an ice pick is used) is stuck into the appropriate punched category and all those cards for women in that category remain on the spindle. If another variable such as the name

of the county is of interest, the operation is repeated for that coded category. The result is the number of married women 30-34 acceptors in that township during the month.

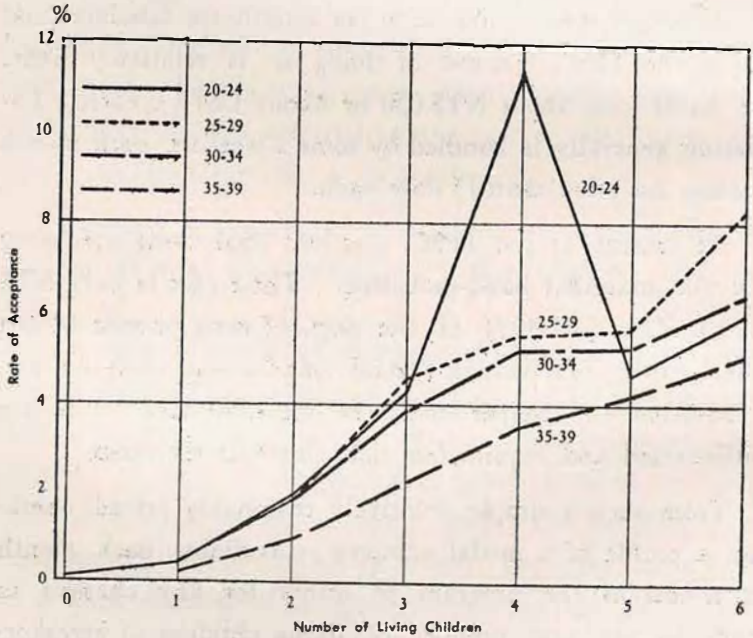
3. Cost, Time, Staffing:

Although some 8,300 cards per month are tabulated and filed at the TPSC, the cost of doing so is relatively little. The cards cost about NT$.050 or about US1$\frac{1}{4}$c each. Tabulation generally is handled by some 2 workers, each month devoting no more than 15 days each.

At present, at the TPSC, standard IBM cards are being used for marginal hand-punching. Their cost is only NT$ 0.20 or US $\frac{1}{2}$c—40% of the cost of each printed McBee punch card. To sort, a special spindle was made for use. In addition to cheaper cost, the standard IBM cards are smaller-sized and require less than one-half the space.

From such a simple, relatively reasonably priced operation, a profile of a modal acceptor is available each month which enables the program to watch for any changes in trends in age and number of living children of acceptors and other factors each month -- changes which will serve as guidelines for program action.

Rate of Acceptance by Age and Number of Living Children



The mode of acceptors was 30-34 years of age. The acceptance rate is positively correlated with the number of living children. It will not increase with age, however, when the latter factor is kept constant.

C. The Flier as Public Information

1. Explanation

The flier is a simple, inexpensive way of informing a large number of people about the loop in a short time at little cost. It explains the main points about the loop and where the doctors inserting the loop are located. Each flier costs less than one tenth of one penny in Taiwan.

Most of the fliers are distributed by volunteers. A booklet contains 100 fliers with the names and addresses of the closest doctors stamped on the back. It is given to men and women in a community who are in daily contact with a large group of people. Preferably, the distributions are respected and sought after by the people for advice. In Taiwan, they are distributed by the Farmers' Association, Health Station personnel, chemist or druggist, factory workers, Women's Association, teachers, etc.

Three main types of volunteers are concentrated on :women satisfied with the loop, doctors, nurses, midwives, and the township registration clerk. The satisfied users are the best saleswomen. The doctors, nurses, and midwives are respected for their medical advice and the use of them legitimizes the program. They are especially useful if they deliver babies and convince the women to plan their families at this time. The township registration clerk who registers the birth of a child also advises them about the loop. He is able to give advice to newly married couples who want marriage certificates.

There are three ways the fliers can be made very effective. First, if the volunteer encourages the women taking Fliers to make a specific appointment with a doctor. Second, if a woman, is given a special offer for a limited time she is more likely to respond. Third, if the volunteers are given a small incentive for each case responding, they are more actively interested.

At the end of the text and before the name and address of the doctor are two blank spaces. They are filled in by the field worker or volunteer so that the woman has a specific appointment with the doctor. Both the time of day and date are put on the fliers in order to help commit the woman to her intentions.

In areas where the loop has been provided free for a limited time—as many as 15% of the married women of childbearing age have responded in three months. On each flier or coupon there is a blank space giving the date of expiration of the flier. The woman is told she must go to a doctor in three months or the special offer is terminated. If the loop is already provided free, then the flier could state that until a certain date there will be a special gift given for each insertion.

2. Sample

1. Have you heard about the new family-planning method that is effective, inexpensive, safe and very easy to use?

Everyone is now talking about the loop. It is a contraceptive device that has been tested for years and proved

very effective. Although similar divices have been used for 25 years by over a million women around the world, not until recently has this method improved.

2. Are many women in Taiwan using this loop?

   Yes, About 10,000 women every month are going to skilled doctors, especially trained by the Maternal and Child Health Institute, to obtain the loop.

3. Is the loop effective in preventing pregnancy?

   Yes! It is one of the most effective contraceptives.

4. Will the loop make the mother too weak to work, or harm the mother's health or interfere with marital happiness?

   No! A mother will be able to continue her daily work. Married life will be happier because the mother will be free from having an unwanted baby.

5. Where is the loop placed in the mother?

   The loop is designed to fit comfortably in a small place where the baby develops.

6. Is it easy to use?

   Yes! once the contraceptive is in the mother there is no difficult or messy contraceptive the mothers have to bother with.

7. What is it made of?

   It is made of a soft flexible plastic.

8. What is the cost?

Right now there is a special offer. Each mother pays only NT$30 to the doctor. This includes whatever medical attention is necessary plus having the loop removed when a child is wanted. The cost is low because the doctor also gets paid by the Maternal and Child Health Association.

9. How long does it take to obtain the loop?

   The skilled doctor can insert the loop in a few seconds. Because there is no pain the mother is not put to sleep or given a shot.

10. After the loop is in place, can the mother have another child?

    Yes! Without pain the doctor simply pulls the loop out in a few seconds.

11. How long will the loop keep the mother safe from having an unwanted pregnancy?

    The loop can stay in as long as the mother wishes.

12. When can the loop be inserted?

    The best time for inserting the loop is two days after mensus. However, the loop can be inserted at any time but it is advisable for a mother not to have marital union with her husband after the last mensus.

13. Will some women have a little dischange after being inserted with the loop?

    Some women will have some bleeding for a short time but this will certainly not harm the mother's health. In

a few cases a mother will bleed for more than two weeks. If this is so, she should return to the doctor. If there are any cramps they will usually go away. The mother's body has to get used to the new device. It is like new shoes. You must wait a bit until they become comfortable.

14. Is there a possibility of the loop falling out of the mother?

    With a very few mothers some may loss their loop during the first or second period. This of course would mean the protection is lost. They should return to the doctor to have the loop put in again as soon as possible.

15. How can the mother tell when she has lost the loop?

    The loops have two small strings. These strings can be felt by the tip of the finger. The mother must make sure the loop is in place by feeling the string in the birth passage at least once a week.

16. Since the loop is safe, inexpensive, easy to use, and effective should not everyone know about it?

    Of course! Why don't you show this flier to a friend, neighbor or relative, they would be very thankful.

17. When can I go to the doctor for a loop?

    Your appointment to see the doctor is_____ (date) at_____(time). Please be on time, the doctor will be expecting you.

18. The doctor is located at:

---

19. This coupon expires on_____ date. (Three months from date of issue for special project areas.)

D. Fieldworker Questionnaire

The following is a questionnaire schedule mailed to all pre-pregnancy health fieldworkers during the 1965 in an effort to determine their usual working procedures and a little about their health education approach.

Indications of the findings were that some workers were spending too much time at the local health stations, not making enough home visits and conducting group meetings, and failing to warn women of side-effects which could normally be expected after insertion of a loop. Further discussion of the findings may be found in Chapter XI.

Partially as a result of the findings and a series of field observation trips, supervision of the workers was considerably improved.

The following is the questionnaire form:

1. During July, August, September, and Octorber, how many loops did you refer on the average per month? (Add up referrals for these four months and divide by four)____

2. Are you now working in a County or City? (Circle one)

3. What is your age? (Check one) 15-19 _____
   20-24 _____
   25-34 _____
   35-39 _____
   40-49 _____
   50+ _____

3. Are you married? Yes _____ No _____

4. How many children do you have? _____

6. Did you start on the job as a PPH worker before October 1964? Yes_____No_____

7. Give the number of hours a day you spend at the local health station_____

8. a) How many lin and group (6 or more people) meetings do you have a month?_____

   b) How many home visits do you make a day?_____

9. a) Give the average number of minutes you usually spend on a home visit._____

   b) Give the average number of minutes you usually spend on a lin or group meeting?_____

10. How many home visits on the average usually produce a loop acceptor for you?_____

11. What proportion of the total population in your working area have you covered by

    a) *Home visits:* (Circle one) 1/5; 2/5; 3/5; 4/5; all; doing follow-up.

    b) *Lin or group meetings* (Circle one) 1/5; 2/5; 3/5; 4/5; all; doing follow-up.

12. What proportion of "lines" do you cover in each "li" on the first time around?

    One of five?_____ One of two?_____

    One of three?_____ One of ten?_____

    One of four?_____

13. Do you copy the names or women with three or more children from the registration lists and visit them first?
Yes_____No_____

14. On the average how many of the women with whom you discuss the loop do you tell that there is a small chance of their becoming pregnant with it?

One of ten_____

Three of ten_____

Five of ten_____

Eight of ten_____

Ten of ten_____

15. On the average, how many of the women do you tell to check the strings regularly to be certain the loop is still in place?

One of ten_____

Three of ten_____

Five of ten_____

Eight of ten_____

Ten of ten_____

16. In your (township or district) working area what complaints about the loop *do you think* has the worst effect on your monthly number of acceptors. Check the most important as "1"; the next in importance as "2"

_____Complaints about pain

_____Complaints about Doctors charging for follow-up

_____Complaints about bleeding

_____Complaints about loss of working capacity after loop is inserted

_____Complaints about pregnancies

_____Doctors recommending other methods than the loop

_____Others (Please mention)

17. We know of one worker who makes 3 home visits a day. How many home visits do you think should be expected of her in one day?_____

18. How many lin and group meetings should be expected for her each week?_____

19. How many acceptances do you believe ought to be expected from a worker each month?_____

20. Have you ever used satisfied loop acceptors in your area to help you convince others of the value of the loop? Yes_____ No_____. If yes,

    1) Have these satisfied users handed out fliers for you? _____Yes, No_____

    2) Have they given talks at any group meetings? Yes _____No_____

    3) Have they gone with you on other home visits to talk about the loop? Yes_____No_____

    4) Have you ever referred people who need convincing to go to talk with the satisfied user? Yes_____No_____

    5) Which of these do you think could be used by you? _____No. 1, 2, 3, 4. Circle any you think you could use.

21. If you have had a "free loop" offer in your working area, answer the following:

    1) Was there a doctor available inside the township or district to insert the loop? Yes_____No_____

    2) Did you stamp the coupons and fliers to indicate that the free loop offer was over at a certain date? Yes_____No_____

    3) Were all lin leaders told that the free offer was available? Yes_____No_____

    4) How soon before the "free-offer was to take place were you notified?_____

    5) During the "free-loop" offer period how many group meetings did you hold per month?_____

    6) How many home visits did you make a day?_____

22. In your community there are people or groups of people who should be used to assist you in your efforts to promote family planning. Check the organization or people which you have contacted and the way they are assisting you:

	Which person or organization have you contacted?	Do they distribute fliers and coupon?	Do they actually refer any cases to you?
a) Township registration clerk			
b) Local doctor			
c) Midwife			
d) Health station doctors			
e) Health station nurse			
f) Health station midwife			
g) Health station sanitary inspector			
h) Health station health worker			
i) Satisfied users of loop			
j) Farmers Association			
k) Teachers groups			
l) Li leaders			
m) Lin leaders			
n) Missionary groups			
o) Military			
p) Factories			
q) Unions or cooperatives			
r) Police			
s) Others			

E. IUCD Medical Record Form

1. Name	2. Age	3. Coupon No.

4. Address

5. Who referred the case
   a. From coupon: PPH VHEN OBG Health Station personnel Other
   b. First information about loop mark "A", most influential source mark "B", if the same mark "AB"
      PPH VHEN OBG Health Station personnel G. P.
      Midwife Relative Neighbor Friend Newspaper Other

Did you attend a lin meeting where loop was discussed?_____

6.	Case	Husband
Education		
Literacy		
Occupation		
Years of marriage		

7. Reproductive and contraceptive history
   a. Number of pregnancies _____ number of live births _____ still birth _____ natural abortion _____ artificial abortion_____
   b. Past use of contraceptive method: Yes _____, No _____
      Type of method:
   c. Present use of contraceptive method:
      Type of method:

8. First visit
   a. Menstruation: Regular _____ Irregular _____
   b. Duration of menses period _____
   c. Amount of flow: little _____ moderate _____ large _____
   d. Menorrhalgia: slight _____ moderate _____ severe _____
   e. Intermenstrual pain: backache _____ hypogastric pain _____ other _____
   f. Intermenstrual bleeding: none _____ spotting _____ bleeding _____
   g. Date of onset of last menses _____
   h. Date of termination of last pregnancy _____never pregnant _____
   i. Outcome of last pregnancy: birth _____ abortion _____ ectopic _____

j. Position of uterus: Anteflexio _____ retroflexio _____
Size: Normal _____ large _____ small _____
Shape: Normal _____ abnormal _____ inyoma _____

k. Adnexia: Normal _____ hyperplastic _____ succeptive to pressure _____

l. Erosion Yes _____ no _____

m. Secretion Yes _____ no _____

n. Pap smear made

o. Type of I. U. D. inserted

p. Insertion: easy _____ difficult _____

q. Date of insertion _____

r. Next appointment _____

s. Remarks _____ Doctor's signature _____

Return visits	Date	Date	Date	Date
I. U. D. still in situ				
Expelled (noted by case)				
Removed (who)				
Pregnant (when)				
Complaints				
Type and severity of side reaction				
Reinsertion				

F. Physician Insertion Contract Form

The following is the content of the contract signed by physicians after they have completed training in loop insertion:

The China Maternal and Child Health Association (The above unit will be called A hereafter) in order to expedite women's health as well as heighten the standard of family life, now makes an agreement with_____Hospital/Doctor (The above unit will called B hereafter) for serving all women who desire loop insertion. The items in the agreement are as follow:

1. The fee for loop insertion is N.T.$30 dollars, according to this agreement. B receives only half price from the patient, the other will be paid by A, after A receives the coupon and case record copies.
2. Responsibility of B:
   a. Must receive all patients introduced by A workers.
   b. Action must be taken for removal of loop under requisition.
   c. Reinsertion after expulsion should be done free of charge.
   d. Follow-up examination within one month, six months, then regularly, or as requested by the patients, should be all done free of charge.
   e. A complete record should be kept for reference.

3. B must assist A workers.
4. All materials needed will be supplied by A to B free of charge.
5. This agreement is effective from_____to_____.

   Continuation after maturity should be agreed by A & B under a new agreement.
6. This agreement is effective as soon as A and B have signed. One copy to each for reference.

A: Maternal and Child Health Association

B: _____Hospital/Doctor

Local representative:_____

Address:_____

Date:_____

G. Loop Insertion Instructions

1. Loop sizes and their use

The loop is made of polyethylene plastic and barium sulfate. It is very flexible and can be inserted into the human body without any histological reaction. Since it eontains barium sulfate the loop can be seen in an X-ray. Since it is flexible, the loop can be placed into a tubular inserter, which can be inserted into the uterus without dilating. A piece of nylon thread is tied to the end of the loop. After insertion, part of the thread protrudes from the external os. This facilitates both the follow-up check and removal of the loop.

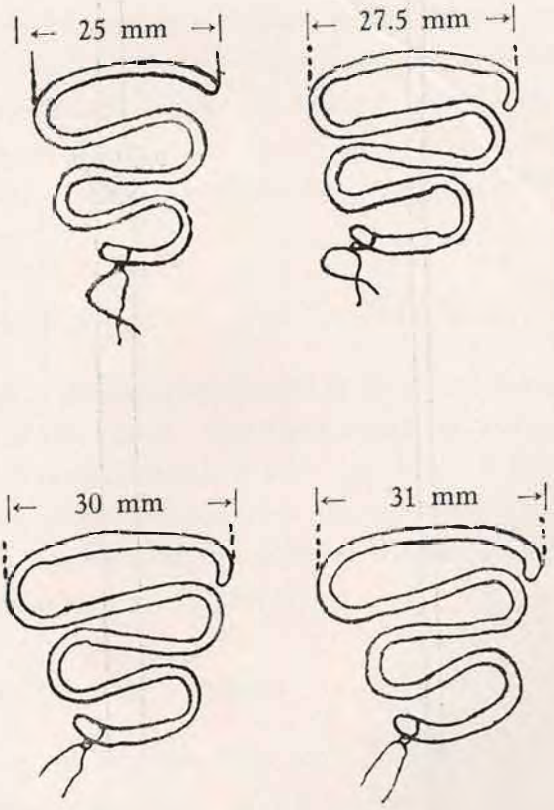
(25 m.m.) – No longer used in Taiwan due to high pregnancy rate of users.

(27 $\frac{1}{2}$ m.m.) – For multiparous females whose uteri sound out less than 2 $\frac{1}{4}$ inches.

(30 m.m.) – Loop most frequently used.

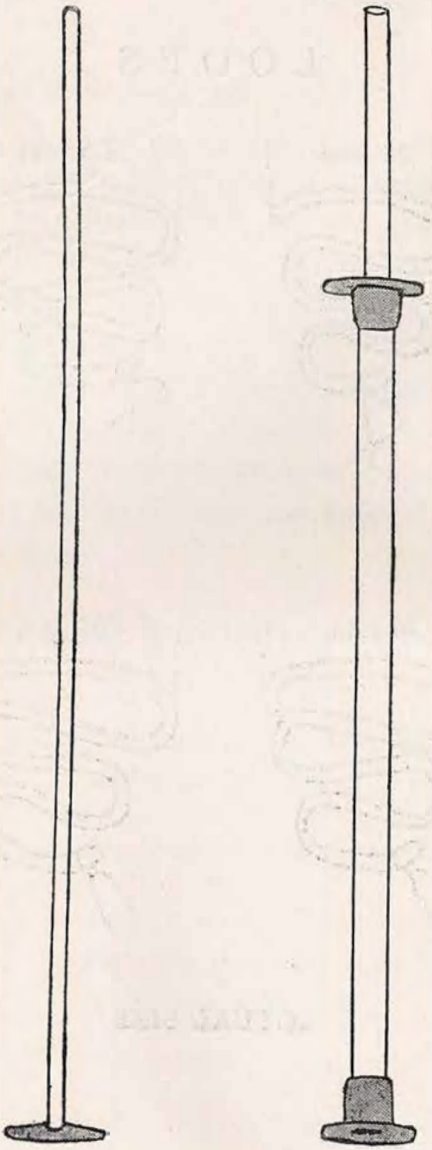
(31 m.m.) – Loop is thick. The continuous use is high but there has been more bleeding in Taiwan with it.

LOOPS



ACTUAL SIZE

INSERTER



(*reduced size)

3. Equipment Needed

Loops are stored in 1/1000 zephiran or antiseptol aqueous solution. Immersion will not cause damage or change in the loop. It is best to store the loop in a large-mouth glass jar. Equipment needed includes: sterile inserter (inserting tube and plunger), gloves, Cusco's speculum, bivalve speculum; long forceps, Martin or Muzeux tenaculum, sounds, curved scissors to cut nylon thread, cotton balls, irrigator for sterilization, and Hegar's dilator No. 3 or No. 4 for dilating if needed.

4. Pelvic Examination and Contraindications

A pelvic examination should be made to determine the direction of the uterus. Insertions should be avoided in the presence of contraindications such as: large fibroids; acute or subacute pelvic inflammatory diseases; pregnancy; hypermenorrhea or endometriosis; a history of recent menorrhagia or metrorrhagia; and carcinoma.

5. The Time of Insertion

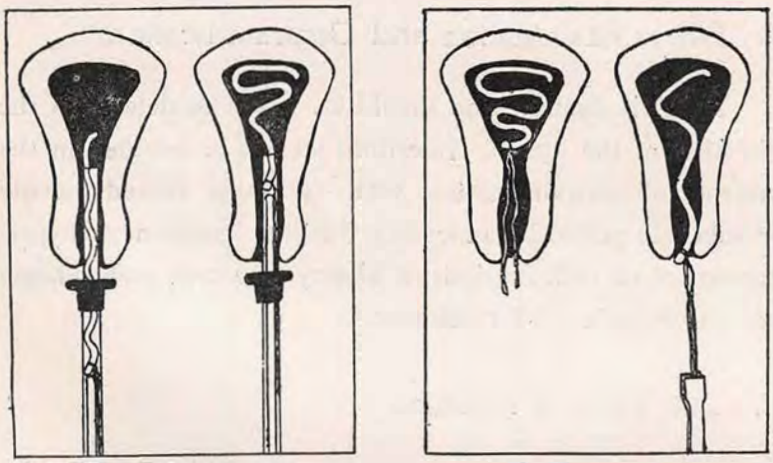
A loop can be inserted at any time. The best time is the last one or two days of the menstrual period. If the woman has not had sexual intercourse after menstruation, the loop may be inserted at any time. But if there has been sexual intercourse after menstruation, there is a slight chance of pregnancy.

The loop can be inserted immediately after abortion,

provided prophylactic tetracyclene or other spectrum antibiotic is given, 250 mg every 6 hours for 72 hours.

In lactating patients with amenorrhea, insertion should be 60 days or more postpartum. A pelvic examination should be made to make sure there is no pregnancy. The frog test is not completely reliable because early pregnancy sometimes shows negative. A follow-up examination is important.

In non-lactating patients, the end of the second postpartum menstruation is a convenient time.



Insertion **Removal**

6. Insertion Procedure

1. Fill in the patient's history form. All items should be checked for the loop study.
2. Determine the direction of the uterus, anteverted or re-

troverted, and detect possible contraindications. Insert Cusco's speculum for the pelvic examination. The cervix should be sterilized with 1/5000 aqueous solution of antiseptol and dried with a sterile cotton ball. Clean the vagina and the vulva with a sterile cotton ball dipped in 1/1000 aqueous solution of antiseptol. Then dry them.

3. Open the cover of the glass jar; take out loop with a sterile forceps.

4. Put on sterile gloves; or, if no sterile gloves have been prepared, sterilize both hands well as in an ordinary surgical operation. Then, pull out the plunger from the inserting tube. Put them on a sterile tray.

5. Push the end of the loop without the thread into the proximal end of the inserting tube. Both the inserting tube and loop are oval in cross section. Therefore, the loop can only be placed smoothly into the inserting tube in the same plane.

6. Insert bivalve speculum, fixing the cervix in the middle position.

7. Insert a sterile sound to determine the direction of the uterus, anteverted or retroverted. If an obstruction is felt at the insertion of the sound, a tenaculum is required to fix the cervix. Pull the tenaculum forward. This will make the sound insertion easy and also will avoid perforation of the uterus.

8. The inserter with the loop is pushed into the uterus to

the position of the first indicator. The direction of insection (to front or back) depends upon position of the uterus, anteverted or retroverted. Insertion does not require dilating. If resistance is felt, fix cervix with the tenaculum; then the insertion will be smooth.

9. Rotate the insertor 90° to right or left after the insertion. Then, the loop is in the correct frontal plane of the uterine cavity.

10. Push the plunger slowly into the tube. A light resistance exists, but is not important. Complete the work.

11. Withdraw the plunger first to prevent its binding or pulling on the nylon thread. Then pull out the inserting tube.

12. Examine the bleeding carefully. If there is bleeding from the tenaculum wounds, press them with a sterile cotton ball for several minutes to stop it.

7. Instructions to the Patients

Patients should be instructed to examine themselves after the first three periods. They should do this in a squatting position by inserting a well-washed finger into the vagina to feel the presence of the thread. They should be told that spotting or light bleeding for several days after insertson is to be expected. This will stop without medical treatment.

After insertion, sometimes the contraction of the uterus will cause abdominal pain or lumbago. This also will stop after a few days without medical treatment. Is it is severe,

the patient should lie down for an hour a day with an ice bay on the abdomen, or take some anodyne.

The first or second menstruation may be postponed or heavy in amount or longer in duration than usual. Sexual intercourse need not be interrupted unless there is bleeding for several days after insertion.

Patients should be examined by a doctor six months and one year after insertion. But, if there are severe side effects, the patients should see the doctor at once.

A loop can be used for several years without removal if there are no side effects, such as irregular bleeding, abdominal pain, etc. In the first or second month after insertion, there may be slight discomfort due to the uterus adjusting to the foreign body. However, it will adapt itself quickly.

H-I

The sample selected as IUD acceptors were asked the questions to be found in the fertility survey as well since they were considered part of the overall Province-wide Fertility Survey sample.

Interviewers trained at the Taiwan Population Studies Center were used. The two interview schedules follow:

H. 1965 Fertility Survey

A Household Composition

A1. How many persons actually live here and eat together regularly in this household, counting adults and children (including temporary absentees, but excluding temporary vistors)?

_____Total. Of these,_____persons eat together.

A2. Are your husband's parents living here with you? Or do you eat together regularly?

Live here and eat together ( ) Live here but don't eat together ( )
No ( ) Died ( )

A3. Are your parents living here with you? Or do you eat together regularly?

Live here and eat together ( ) Live here but don't eat together ( )
No ( ) Died ( )

A4. Are any of your husband's married brothers or sisters living with you? Or do you eat together regularly?

Live here and eat together ( ) Live here but don't eat together ( )
No ( )

A5. Are any of your married brothers or sisters living here with you? Or do you eat together regularly?

Live here and eat together ( ) Live here but don't eat together ( )
No ( )

A6. Is there any other married couple who are your relatives living with you? Or do you eat together regularly?

Live here and eat together ( ) Live here but don't eat together ( ) No ( )

B. Pregnancies and Births

B1. We are very much interested in learning your pregnancies and births, would you please tell me how many live births did you have?

O. No ( ) 1. Yes,_____total

B2. Did you have any child who has died?

O. No ( ) 1. Yes,_____total

B3. How many of your children are living now? (including those adopted out, but excluding those adopted in)

O. No ( ) 1. Yes,_____total (_____boy (s),_____girl(s))

B4. Do you have any child who is adopted out?

O. No ( ) 1. Yes,_____total (_____boy(s))

B5. Now, please tell me the birthdate of each of your child ren and state whether you have lost any child. (Interviewer: Fill out the following table according to the order of live births.

Order of Live Birth	Male	Female	Date of Birth			Died	Still Alive		Remarks
			Year	Month	Day		Male	Female	

B6. Some pregnancies end in still births, a miscarriage. and an induced abortion. Have you had pregnancies ended in these ways?

(O). No still births ( ) (1). Yes,_____total still births

(O). No miscarriage ( ) (2). Yes,_____total miscarriage

(O). No induced abortion ( ) (3). Yes,_____total induced abortion

(IF HAS HAD EXPERIENCES OF ABORTION)

B7. How many children did you have when you had your first induced abortion?

(O). No ( ) (1). Yes,_____total (_____boy(s),_____girl(s))

B8. Have you had any pregnancy that was taken out in this way since you had your (last) child?

(O). No ( ) (1). Yes, _____total (2). No child _____

B9. Was your last induced abortion perform at the government hospitals, public hospitals, private OBG practitioner clinics, general practitioners, midwives, or others?

O. No ( ) 1. Gov't hospitals ( )

2. Private OBG's ( ) 3. Public hospitals ( )

4. General practitioners ( ) 5. Midwives ( )

6. Others (Specify)

B10. By the way, are you pregnant now or not?

0. No ( ) 1. Yes ( ) 2. Uncertain ( )

Skip to B14 ↙

(IF YES, OR UNCERTAIN)

B11. When was the date of your last menstruation?

_____Year_____Month_____Day

(IF CURRENTLY NOT PREGNANT)

B12. Some couples cannot have more children because of an operation or physical reason (ill health). How is it with you or your husband? Do you think you can have more children?

1. Can ( ) 2. Cannot ( ) 3. Uncertain ( ) 4. Don't know ( )

↓

(SKIP TO B15)

B13. Have you or your husband had an operation or what?
Wife had a ligation ( )
Wife had other operation resulting in sterility ( )
Husband had a vasectomy ( )
Other, (SPECIFY)

B14. Why are you uncertain or don't know whether or not you can have more children?

B15. Would you like to have more children or not?

0. No ( ) 1. Yes ( )

B16. How many children do you like to have? Of these, how many would you like to be boys and how many girls or would either be all right?

_____Children (_____Boys,_____Girls), Either ( )

B17a. If you were just getting married and could have just the number of children you want, how many would you like to have born when you are through having children by age 45?

_____children

B17b. Of these, how many would you like to be boys and how many girls or would either be all right?

_____children (_____boys,_____girls) Either_____

B18. In general, how many children do you like would be most ideal for average married couples in Taiwan?

_____children

Others (SPECIFY)

C. Attitude Toward and Practice of Family Planning

C1. Do you think that Taiwan now has too many people, just enough people, or not enough people?.

1. too many ( ) 2. Just enough ( )
3. not enough ( ) 4. Don't know or never think about it ( )

(IF OTHER THAN THE LAST ANSWER)

C2. Why do you think that way?

C3. Nowadays, some married couples do something to keep from getting pregnant too often or having too many children (more than they want). Generally speaking, do you approve of their doing this kind of thing?

Would you say you approve very much, much, not so much, or not at all?

1. Very much ( ) 2. Much ( ) 3. Depends ( )
4. Not so much ( ) 5. Not at all ( )

C4. Have you and your husband talked to each other about this kind of matter (ways to keep from getting pregnant too often or having too many children)?

1. Frequently ( ) 2. Sometimes ( ) 3. Once in a while ( )
4. Never ( )

C5. What methods do you know that married couples use to keep from becoming pregnant?

Interviewers: Check it according to the respondent's self-expression and then give hint on the other methods If the respondent knows, check them:

Do not know any methods ( )

Know the following methods ( )

Methods	Self-mentioned	Hinted
1. Condom		
2. Foam Tablets		
3. Jelly		
4. Diaphram		
5. Rhythm		
6. Basic temp.		
7. Interrupt Coitus		
8. Ota Ring		
9. Loop		
10. Tubal Ligation		
11. Vasectomy		
12. Oral Pill		
13. Others		

C6. By the way, from what sources did you come to know such a method?
(INTERVIEWER: ASK EACH OF THE FOLLOWING SOURCES SEPARATELY)

1. Radio ( )
2. Newspaper or magazines ( )
3. Doctor ( )
4. Midwives ( )
5. PPH ( )
6. VHEN ( )
7. Health worker ( )
8. Neighor ( )
9. Relatives or friends ( )
10. Others ( )

Ihterviewer: (In order to make the respondent realize the difference of PPH, VHEN and Health work interviewer should explain their work to the respondent).

(IF THE RESPONDENT KNOWS ABOUT LOOP, ASK THE FOLLOWING QUESTIONS. CHECK IT WITH C5)

C7. From what sources did you come to know loop?

1. Radio ( )
2. Newspaper or magazine ( )
3. Doctor ( )
4. Midwives ( )
5. PPH ( )
6. VHEN ( )
7. Health work ( )
8. Neighbor ( )
9. Relatives or friends ( )
10. Others ( )

C8. Have you and your husband ever used anything to keep from getting pregnant too often or having too many children (more than you want)?

1. No ( ) (Skip to C13)
1. Yes ( )

(If Yes)

C9. What methods have you ever used? (Including currently used methods) Methods (Specify)

C10. After which live birth did you first start doing that?

Before first live birth ( )

After_____live birth

C11. How many children did you have when you first started to do something to keep from getting pregnant?

0. No child ( )

1. _____ child (ren) (_____boys_____girls)

C12. Have you done anything to keep from getting pregnant after you had your last child?

0. No live birth ( )

1. Yes ( )

2. No ( )

C13. Since you had your last child or since you were married, have you and your husband been separated continuously for three months or more when you were not pregnant and did not see each other at all?

If Yes, altogether how many months did you not see each other?

0. No ( ), 1. Yes,_____Months

(Interviewer: Check C9. if the respondent is a loop acceptor, SKIP TO C27)

C14. Are you and your husband doing anything now to keep from getting pregnant too often or having too many children (more than you want)?

Yes ( ) ↓

C15. What are you doing? (Specify)_____

C16. Are you satisfied with what you are doing or are you not satisfied?
1. Satisfied ( )
2. Not satisfied ( )
(IF NOT SATISFIED)
C27. Why are you not satisfied? (Specify)

No ( ) ↓

C18. Do you expect to do something in the future to keep srom getting pregnant or not?
1. Yes ( ) 2. No ( )
3. Can't have children ( )
(If YES)
C19. How many more children do you think you will have before you start doing something to keep from getting pregnant?
1. __(more) children
__(more) boys, __(more) girls
2. Right away ( )
3. Other (Specify):_____
(IF No)
C20. Why? (Specify reason) _____

C21. Would you be interested in learning more about ways to keep from getting pregnant after having at least as many children as you want?

(Interviewer: Check "Can't have children" with B11 Answer "No")

1. Yes ( ) 2. No ( ) 3. Can't have children ( )

(INTERVIEWER: IF R. DOES NOT ALREADY KNOW ABOUT THE LOOP CHECK C5 SKIP TO C25)

C22. Do you know where you can get an insertion of the loop?

0. No ( ) 1. Yes (Specify where)

C23. Have you heard any good things about the loop?

0. No ( ) 1. Yes (Specify what)

C24. Have you heard any bad things about the loop?

0. No ( ) 1. Yes (Specify what)

(Interviewer: Check C22, C23, C24 with C5)

C25. Does a method like the loop appeal to you or not? (Show a loop and fliers)

1. Yes ( ) 2. No ( ) 3. Not sure ( )

(IF YES)

C26. Do you think you would want to use the loop or not? Would you say difinitely yes, probably yes, probably, or definitely no?

1. Definitely yes ( ) 2. Probably yes ( ) 3. Probably no ( )
4. Definitely no ( ) 5. Not Sure ( ) 6. Can't have children ( )

C27. In Taiwan do you think married couples are doing anything to keep from getting pregnant after having at least as many children as they want?

Would you say many, some, just a few, or no one in Taiwan is doing such things?

1. Many ( ) 2. Some ( ) 3. Just a few ( ) 4. None ( )
5. Don't know ( )

C28. Do you know if any of your friends, neighbors, relative are wearing the Ota ring? Would you say there are many, some, just a few, or no one among your friends, neighbors, or relatives wearing such a device?

0. None ( ) 1. Just a few (1-2 persons) ( )
2. Some (3-4 persons) ( ) 3. Many (more than 5 persons) ( )
4. Don't know ( )

29. Do you know if any of your friends, neighbors, relative are wearing the loop? Would you say there are many, some, just a few, or no one among your friends, neighbors, or relatives wearing such a device?

0. None ( ) 1. Just a few (1-3 persons) ( )
2. Some (3-4 persons) ( ) 3. Many (more than 5 persons)
4. Don't know ( )

D. Exposure to Mass Media

D1. Can you read Chinese—say, in a newspaper?

1. Yes ( ) 2. No ( )

(IF YES)

D2. Do you usually get a chance to read a newspaper? Would you say everyday, several times a week, once a week, less often, or never?

Everyday ( ) 2. Several times a week ( )
3. Once a week ( ) 4. Less often ( ) 5. Neven ( )

E. Traditional Family Values

E1. Would you expect to live with your children or grandchildren when you are old? Would you say dedfinitely yes, probably yes, probably no, or definitely no?

1. Definitely yes ( ) 2. Probably yes ( )
3. Probably no ( ) 4. Definitely no ( )

(IF YES)

E2. If you would have sufficient means to take care of yourself when you are old, do you still expect to live with your children or grandchildren? Would you say definitely yes, probably yes, probably no, or definitely no?

1. Definitely yes ( ) 2. Probably yes ( )
3. Probably no ( ) 4. Definitely no ( )
5. Other answer (Specify):

F. Wife's Background

F1. What is the highest school you have ever attended?

	Graduated	Ungraduated
0. No formal education	( )	( )
1. Tutors or private classes only	( )	( )
2. Elementary	( )	( )
3. Junior high	( )	( )
4. Senior high	( )	( )
5. College and Over	( )	( )

F2. How many years have you studied in the schools?

(Give the number of comp(eted years of each category excluding kinder-garden)

0. No formal education	_____Years
1. Tutors or Private classes only	_____Years
2. Elementary	_____Years
3. Junior high	_____Years
4. Senior high	_____Years
5. College and Over	_____Years
Total Years of education	_____Years

F3. When where you born? _____Year_____Month _____Day

F4. Are you Fukienese, Hakka, or what?

1. Fukienese ( ) 2. Hakka ( ) 3. Mainlander ( )

4. Others: (Specify)

F5. Where were you born?

_____Province_____Hsien/City_____District/Township

F6. Please tell me what is your religious denomination?

1.Non confirmist ( ) 2. Polytheism ( ) 3. Protestant ( )

4. Catholic ( ) 5. Others:

F7. When were you married? _____ Year _____ Month _____ Day

F8. Is the present marriage your first marriage?

1. Yes ( ) 2. No ( )

(If no)

F9. When were you first married?

_____ Year _____ Month _____ Day

F10. Beside routine house work, do you hold any other job?

1. Yes ( ) 2. No ( )

(If Yes)

F11. What kind of work do you do?

F12. Is this work doing at home or somewhere else?

1. At Home ( ) (Including your own farm work

2. Somewhere else ( )

(IF SOMEWHERE ELSE)

F13. Are you doing this work for a relative or for someone else or in a family business?

1. For a relative ( )
2. For someone else ( )
3. A family business ( )

G. Husband's Background

G1. What is the highest school your husband has ever attended? Has he graduated or not? (Interviewer: Check the highest school her husband has ever attended)

Education	Graduate	Non-graduate
0. Nor formal education		
1. Tutored or private class only		
2. Elementary		
3. Junior high		
4. Senior high		
5. College and Over		

G2. How many years has your husband studied in the schools he has ever attended? (Give number of completed years of each category, but excluding kindergarden)

0 No formal education _____ years
1 Tutored or private class only _____ years
2 Elementary _____ years
3 Junior high _____ years
4 Senior high _____ years
5 College and over _____ years
Total _____ years

G3. When was your husband born? _____Years _____Month _____Day

G4. Is he Fukienese, Hakka, or what?

1. Fukienese ( )
2. Hakka ( )
3. Mainlander ( )
4. Other ( )

G5. Where was he born?

_____Province_____Hsien/City _____District/Township

G6. What does your husband usually do for a living?

Occupation and Position:

(IF UNEMPLOYED OR THE MILITARY SERVICE)

G7. What did he usually do for a living before he become unemployed or went to the military service?

G8. Does he work for himself, for the family, for a relative, or for someone else?

Himself ( ) Family ( ) Relative ( )Someone else ( )

G9. Have you and your husband ever lived on a farm either before or after marriage?

1. Ever (2. Never ( )

(IF EVER LIVED ON A FARM)

G10. Was that you or your husband or both of you?

1. Wife ( ) 2. Husband ( ) 3. Both ( )

(IF HUSBAND IS A FULL TIME FARMER)

G11. How much farm land does your family operate? How much of this is owned by your family, and how much is rented?

Type of land	Owned			Rented in			Total		
	Chia	Fen	Li	Chia	Fen	Li	Chia	Fen	Li
Paddy field									
Dry field									
Upland									
Orchard									
Forest									
Total									

G12. Do you own any of the following: (ASK FOR EACH ITEM ON THE LIST AND CHECK ITEMS OWNED.)

1. Radio ( )
2. Electric iron ( )
3. Electric rice cooker ( )
4. Electric fan ( )
5. Sewing machine ( )
6. Radio with phonograph ( )
7. Newspaper subscription ( )
8. Running water inside house ( )
9. Private lavatory ( )
10. Refrigerator ( )
11. Bicycle ( )
12. Motorcycle ( )

G13. Has your family income this year been about the same as the year before or has it changed? Would you say that your family income increased considerably, increased somewhat, remained about the same, or decreased

considerably?

1. Increased considerably ( )
2. Increased somewhat ( )
3. Remained about the same ( )
4. Decreased considerably ( )

(IF INCREASED)

G14. Why did your income increase? Did you do something to improve your earnings, and if so, what? For example, did you or your husband or some family member take additional employment, did you have an increase in wages for someone or what?

Interviewer's Report

1. Persons other than the respondent present during interviewing (record as to their relationships to the respondent):
2. Degree of cooperation: Very good ( ) Good ( )
   Not so good ( ) Not good at all ( )
3. Reliability of responses: All reliable ( ), Partly unreliable ( )
   Unreliable ( )

   Remarks:

4. Evaluation of socio-economic status of the respondent's household
   Upper ( ) Upper middle ( ) Middle ( )
   Lower middle ( ) Lower ( )
5. Other comments: _____

_____

_____

_____

_____

_____

6. Description of the respondent and the location of the household for aid in re-interviewing. (If necessary, draw a map):

TIME OF LEAVING: _____ A. M., _____ P. M.

TIME OF INTERVIEW: _____ Minutes

I. IUCD Acceptor Follow-Up

A. History of Insertions

If R is a general sample, begin with this question

A1. Our record shows that you first had a loop insertion on _____ Year _____ Month _____ Day
Is that correct? 1. Yes ( ) 2. No ( ) 3. Never inserted ( )

(If no)

A2. What was the date on which had your first insertion?
_____ Year _____ Month _____ Day

(interviewer: Obtain the date of insertion from A1. or A2, then write it on the 2nd column of the following table)

A3. Now, we know that some women lose the loop or have it removed for one reason for another. We also know that some women have new insertions even after they lose or remove the one they were wearing. How has it been with you since you first had the loop inserted? Have you ever lost it or had removed it? Have you had reinsertions? Can you tell me when these things happened in the order of their occurrence?

Order of Insertions	Date of Ins. Yr. Mo. Day	Conditions of Loop							
		Still in Situ	Removed Yr.	Mo.	Day	Expelled Yr.	Mo.	Day	Uncertain Why? State
1st									
2nd									
3rd									
4th									
5th									

B. Complaint after insertion

B1. Our study in Taichung shows that the loops will be comfortably worn by most of the women, but to a small proportion of women, the loops may cause some discomfort of varied degree and length of time. We are interested in knowing your case. Have you ever had any discomfort after the initial insertion, which you thought probably was due to the loop?

1. Yes ( ) 0. No ( )

(Interviewer: If yes, ask the following questions (B2—B6) and check them in the table)

B2. What was the nature of discomfort? Would you say they were rather mild, moderate, or severe?

B3. When did your complaint happen after the initial insertion of the loop?

B4. Have you ever visited the doctor for treatment? Did you feel better after that that? (If you asked your doctor to remove the loop because of discomfort, then this case could not be regarded as treated. If the initial insertion has been removed or expelled, what was the final condition before expulsion or removal?)

B5. Do those complaints still persist now?

B6. How long did it last?

Complaints after the initial insertion			* 1	2	3	4	5	6	7	8	9	10	11	Psycho-neurotic symproms: 12	13	14	15
B2	degree	Mild															
		Moderate															
		Severe															
B3	days	0 - 7															
	between	7 - 30															
	initial	30 - 60															
	insertion	60 - 90															
	and onset	90 - 120															
	of	120 - 150															
	complaint	150 - 180															
		180 above															
B4	never	same															
	treated	improving															
		spontaneous healing															
	the result	same															
	of	improving															
	treatment	conplete healing															
B5	complaints still continue now	Yes															
		No															
B6	How long did it last? (month)																

* Remarks

1 Bleeding
2 Spotting
3 Abdominal Pain
4 Lumbago
5 Mens. Irregular
6 Mens. Increased
7 Mens. Decreased
8 Mens. Prolonged
9 Mens. Shortened
10 Vaginal Discharge
11 Signs of Infection, Fever
12 Loss of Appetite
13 Dizziness
14 Change in Body Weight
15 Others (Specify):

(If had 2nd, 3rd or 4th loop insertion)

B7. Have you ever had any dicomfort after the second or the third insertion? Would you say they were rather mild, moderate, or severe?

Complaints*	2nd			3rd			4th			5th		
	A	B	C	A	B	C	A	B	C	A	B	C
1. Bleeding												
2. Spotting												
3. Abdominal pain												
4. Lumbago												
5. Mens. Irregular												
6. Mens. Increased												
7. Mens. Decreased												
8. Mens. Prolonged												
9. Mens. Shortened												
10. Vaginal Discharge												
11. Signs of Infection, Fever												
12. Psycho-neurotic symptoms:												
a. Loss of appetite												
b. Change in body weight												
c. Dizziness												
d. Others: (Specify):												

Remark: _____

*A: Mild B. Moderate C. Severe

B8. Have you ever visited the doctor for follow-up examination after the first insertion? How many times?

(1) Yes, _____ times. (2) No ( )

B9. Where did you go for follow-up examination or for treatment?

(1) Private M.D. ( ) (4) Drugstore ( )
(2) Health Station ( ) (5) Midwife ( )
(3) Hospital ( ) (6) Others (Specify):

B10. Why did you go to the doctor for follow-up examination or for treatment?
(1) For regular check up ( )
(2) For discomfort ( )
(3) For removing the loop due to discomfort ( )
(4) For examining whether pregnancy or not ( )
(5) For examining whether the loop was still it situ or not ( )
(6) For wanting more children ( )
(7) Others

B11. Were the removals performed by the same doctors who inserted the loop?
(1) Same doctor ( )
(2) Other doctor ( )
(3) Others:
(If other than the same doctor)

B12. Who removed it? (Specify the name and address of doctors, health stations and hospitals):

B13. Were you satisfied with the services received from the doctors?
(1) Yes ( ) (2) No ( )
(If No)

B14. Why?

B15. How much did you pay the doctors for the examination these times?
NT$_____
(If did not go the doctor for examination)

B16. Why did you not go the doctor for follow-up examination? (Specify)

C. Removal

(If ever removed)

C1. Why did you have the loop removed? (CHECK)

Reasons / Order of Insertion	Pregnant	Want Child	Item of Complaint			Influenced by Others: (Specify)	Others: (Specify)
			Major	Intermediate	Minor		
First							
Second							
Third							
Fourth							
Fifth							

(If any removal due to complaint)

C2. Did these symptoms improve after the removal?

1. Yes ( ) 0. No ( )

C3. How do you feel now? (Check it with table B3)

C4. Where the removals performed by the same doctors who inserted the loop?

	First	Second	Third	Fourth	Fifth
Same doctor					
Other doctor					
Self					

(If other than same doctor)

C5. Who removed it? (Specify the name and address of doctors, health stations or hospitals):

C6. Why did you not go to the same doctor for the removal? (Specify):

D. Expulsions

D1. I see that you lost the loop _____ times.

D2. When the loop was first lost, did you take notice of losing it or not?

1. Yes ( ) 2. Found out in self-examination ( )
3. No, but found out in follow-up examination ( )

(If Yes)

D3. Did you lose it during menstruation?

1. During menstruation ( ) 2. Other time ( )
3. Don't know ( )

D4. Were you instructed to examine yourself whether the loop is in place?

1. Yes ( ) 0. No ( )

(If Yes)

D5. What were you told?

D6. Are you doing it regularly?

1. Yes ( ) 0. No ( )

(If Yes)

D7. Are you able to fell the thread?

1. Yes ( ) 0. No ( )

(If No)

D8. Why not?

E. Discontinued Users

(To Discontinued Users Only)

E1. As you said, we know that you are not using the loop now. Have you ever tried any other method after discontinuation?

1. Yes ( ) 2. No ( )

(If Yes)

E2. What methods have you or your husband tried?

E3. What methods are you or your hasband using now?

E4. Is this method satisfactory to you and your husband?

1. Yes ( ) 2. No ( ) 3. Still Uncertain ( )

(If No or Uncertain)

E5. Specify reason:

F. Pregnancies after Insertion

F1. Have you ever become pregnant after initial insertion of loop?

1. No ( ) 2. Not sure now ( )

3. Yes, _____ times

(If Yes)

F2. Can you tell me which pregnancy was it? When was the date of last menstruation prior to the pregnancy?

(Interviewer: Copy down the order of the pregnancy and the date of last menstruation prior to the pregnancy and forms of termination on the following table.)

Order of Pregnancies	Date of L. M. P.	Forms of Termination			
		Live Birth	Still Birth	Abortion	Miscarriage
1st					
2nd					
3rd					
4th					
5th					

F3. Did the pregnancy occur while loop was in place, or after expelled or removed?

1. In place ( ) 3. After noticed expulsion ( )
2. After removal ( ) 4. After unnoticed expulsion ( )

(If no pregnancy or uncertain)

F4. When was the date of your last menstruation?

_____ Year _____ Month _____ Day

G. General Questions

G1. Was this loop insertion the first experience of your contraceptive practice?

1. Yes ( ) 2. No ( )

G2. After which pregnancy did you first start to use the loop?

1. Before first pregnancy ( )
2. After _____ pregnacy

(If not used before first pregnancy and has at least a live birth)

G3. How many living children did you have when you first started to use the loop?

Children (Boys _____ Girls _____)

G4. Who was the most influential person who convinced you to have the loop inserted? (Check 1, 2)

1. PPH Worker ( ) 2. VHEN ( )
3. H. S. Personnel ( ) 4. Private Midwife ( )
5. Husband ( ) 6. Private OBG's ( )
7. Neighbor or relative, or friend inserted loop ( )
8. Neighbor, relative, or friend without loop inserted ( )
9. Self ( ) 10. others (Specify): _____

G5. Have you told your husband about your loop?

1. Yes ( ) 0. No ( )

G6. Have you told anybody else?

1. Yes ( ) 0. No ( )

G7. Have you ever advised anyone to insert the loop?

1. Yes ( ) 0. No ( )

G8. Among them how many do you definitely know that have the loop already inserted?

1. Don't know ( ) 2. _____ Persons for sure

G9. Now, in general, do you say the loop has been very satisfactory, rather unsatisfactory but can be tolerated, or very unsatisfactory to you?

1. Very satisfactory ( ) 3. Satisfactory ( )
2. Can be tolerated ( ) 4. Very unsatisfactory ( )

(If "can be tolerated" or "very unsatisfactory")

G10. Why?

Time of Leaving: _____ A.M.
_____ P.M.

Total Time of the Interview _____


N
Korea
Japan
CHINA
Ryukyu
Pacific Ocean
Taiwan
Hong Kong
Vietnam
Laos
Thailand
Philippines